Hepatitis C Extract

PXRM*1.5*1
LR*5.2*260
PSJ*5*48
PSO*7*45

INSTALLATION AND SETUP GUIDE

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Department of Veterans Affairs
VistA Technical Services

Preface

Purpose of Installation and Setup Guide

This Installation and Setup Guide describes how to prepare for, install, and implement the Hepatitis C Extract application, which consists of Clinical Reminders patch PXRM*1.5*1, Laboratory patch LR*5.2*260, Inpatient Medications patch PSJ*5*48, and Outpatient Pharmacy patch PSO*7*45.

Recommended Users

- Department of Veterans Affairs Medical Center (VAMC) Information Resources Management (IRM) staff
- Clinical Reminders Managers
- Laboratory Information Managers (LIM), Lab ADPACs, or experts in lab tests used by the Laboratory package
- Pharmacy ADPACs
- Representatives from the Microbiology section for the Emerging Pathogens Initiative (EPI) (i.e., director, supervisor, or technologist)
- Total Quality Improvement/Quality Improvement/Quality Assurance (TQI/QI/QA) staff (or person at the facility with similar function)

Related Manuals

Clinical Reminders V. 1.5 Installation Guide (PXRMIG.PDF)
Clinical Reminders V. 1.5 Manager Manual (PXRMTM.PDF)
Laboratory Patch 260 Emerging Pathogens (EPI) Technical and User Guide (LR_260TUG.PDF)

Manuals are available in Portable Document Format (PDF) at the following locations:

- Albany   152.127.1.5   anonymous.software
- Hines   152.129.1.110   anonymous.software
- Salt Lake City   152.131.2.1   anonymous.software

Web Sites

http://vista.med.va.gov/reminders	Contains manuals and other information about Clinical Reminders and the Hepatitis C Initiative
http://vista.med.va.gov/softserv/clin_nar.row/lab/index.html	Contains documentation and other information about the Laboratory package, including Emerging Pathogens and patch 260, which is part of Hepatitis C Extract
http://vaww.va.gov/publ/direc/health	Location of Information Letter IL 10-98-013 directing assessment of veterans for Hepatitis C
http://www.va.gov/hepatitisc/	Information for veterans and clinicians about Hepatitis C.

Contents

Introduction

Hepatitis C Virus (HCV)
Infection with Hepatitis C virus is an issue of importance to veteran patients with the Veterans Health Administration (VHA). An Information letter published by the Under Secretary of Health (USH) in June 1998 directed that "all patients will be evaluated with respect to risk factors" for HCV (See the copy of IL 10-98-013 in the appendix). Clinicians are required to record this assessment in the patients' medical records. Based on risk factors, antibody testing should be used according to an algorithm included in the Information letter. According to the VHA Chief Consultant for its Acute Care Strategic Health Care Group, the USH intends that each patient seeking care in a VHA facility will be screened for HCV risk factors. Veterans Information System Network (VISN) officials were advised of this goal. The House Veterans Affairs Committee (HVAC) has requested information regarding progress toward attaining this assessment of all patients.

Emerging Pathogens Initiative (EPI)
The VHA Headquarters Infectious Disease Program Office has been following infectious diseases in veterans electronically since 1997. Data is currently searched, extracted, and reported from VHA facilities (through the Laboratory Search/Extract software) and stored in the Emerging Pathogens Initiative (EPI) database located at the Austin Automation Center (AAC). The EPI database assists the Program Office with surveillance related to infectious diseases. In addition to what is currently extracted from VHA facilities and stored in the EPI database, the EPI extraction will expand the HCV information obtained from VHA facilities to answer key epidemiological questions about HCV care. The Program Office will review Hepatitis C risk assessment, laboratory testing, and medications provided to the veteran population.

- Hepatitis C risk assessment information to be stored by the EPI:
    Risk Factors for Hepatitis C
    No Risk Factors for Hepatitis C
    Declined Assessment for Risk Factors for Hepatitis C
    Assessed previously (Previous Assessment for Hepatitis C Risk)
    Hep C Antibody Positive on file
    Hep C Antibody Negative on file

- Three new emerging pathogens will be added to the EPI surveillance definitions for patients seeking care in a VHA facility:
    Hepatitis A Antibody Positive
    Hepatitis B Positive
    Hepatitis C Antibody Negative
    NOTE: Hepatitis C Antibody Positive is already extracted at VHA facilities for the EPI database.

    For each occurrence of one of the four pathogens above, the most recent laboratory test of bilirubin, SGOT, and SGPT will be extracted and sent to the EPI database.

- The medications to be extracted for the EPI database are based on the following Generic Drug list:

  INTERFERON ALFA-2A
  INTERFERON ALFA-2B
  INTERFERON ALFA-2B/RIBAVIRIN
  INTERFERON ALFA-3N
  INTERFERON ALFACON-1
  INTERFERON BETA-1A
  INTERFERON BETA-1B
  RIBAVIRIN

Integrated Build for Hepatitis C Extract

Hepatitis C Extract is an integrated build containing four patches that work together to extract the different data components for the enhancement to the EPI Laboratory Search/Extract process. These patches are combined for ease of installation at the VHA facilities. Hepatitis C Extract is comprised of the following patches: PXRM*1.5*1, LR*5.2*260, PSJ*5*48, and PSO*7*45. Transmittal of EPI data will now occur automatically, once all the parameters are set up; in the past, this had to be initiated manually.

This Hepatitis C Extract application will be used to meet the Hepatitis C Initiative requirements.

Patch PX*1*85, Hepatitis C Risk Assessment, was released in March 2000 with a clinical reminder that provided VHA facilities with guidelines for collecting risk assessment information. This patch represented the first phase in implementing a process for national roll-up of assessment data. The clinical reminder distributed in the PX*1*85 patch was also distributed in the Clinical Reminders 1.5 package with a new definition.

Clinical Reminders Patch PXRM*1.5*1

Patch PXRM*1.5*1 adds new data to existing files in the Clinical Reminders V. 1.5 package. It also adds one new file that temporarily stores data extracted from reminder evaluation processing. This temporary data can be used for review and data validation of data extracted to update the EPI database, based on three reminder definitions:
  VA-HEP C RISK ASSESSMENT
  VA-NATIONAL EPI LAB EXTRACT
  VA-NATIONAL EPI RX EXTRACT

The data extracted for risk assessment is based on the VA-HEP C RISK ASSESSMENT reminder definition. The data extracted from laboratory is based on the VA-NATIONAL EPI LAB EXTRACT reminder, previously distributed as VA-NATIONAL EPI DB UPDATE. Both of these reminders were first released in the Clinical Reminders V.1.5 package. A new reminder definition, VA-NATIONAL EPI RX EXTRACT, is distributed in this patch for extracting pharmacy data. These three reminder definitions provide the criteria for extracting the lab, pharmacy, and risk assessment data.

This patch also adds 18 new reminder terms to the REMINDER TERM file (#811.5) and two new report options for reporting extract data.

Laboratory Patch LR*5.2*260

Patch LR*5.2*260 is an enhancement to Laboratory EPI patch LR*5.2*132 and Laboratory Search/Extract patch LR*5.2*175. The enhancement supports the tracking of three new emerging pathogens (Hepatitis A Antibody POS, Hepatitis B POS, and Hepatitis C Antibody NEG), along with the existing 14 emerging pathogens.

For further information, see the *Laboratory Patch 260 Emerging Pathogens Initiative (EPI) Technical and User Manual*, available on Anonymous directories and on the Clinical Reminders and Laboratory web pages.

Outpatient Pharmacy Patch PSO*7*45

Patch PSO*7*45 allows the Clinical Reminders package to call the Outpatient Pharmacy V. 7.0 package for patient and prescription information, based on a specified date range and a specified list of medications, as it relates to the Hepatitis C initiative. This patch will not affect users of the Outpatient Pharmacy package. The PSOORAPI routine in patch PSO*7*45 provides an entry point that returns patient and prescription information in a ^TMP global to the Clinical Reminders package, based on the criteria passed into the call.

Inpatient Medications Patch PSJ*5*48

Patch PSJ *5*48 allows the Clinical Reminders package to call the Inpatient Medications V. 5.0 package for patient and order information, based on a specified date range and a specified list of medications, as it related to the Hepatitis C initiative. This patch will not affect users of the Inpatient Medications package. The PSJORAPI routine in patch PSJ*5*48 provides an entry point that returns patient and order information in a ^TMP global to the Clinical Reminders package, based on the criteria passed into the call.

Impact on Sites

- Installation of integrated build
- Setup and implementation by local multidisciplinary team
- Hepatitis C data automatically extracted monthly to send to the EPI database at AAC
- Review of reports on hepatitis assessment and treatment (more messages will be received)
- Reports to VHA management on hepatitis assessment and treatment, as requested

Impact on Clinicians

- Use of VA-HEP C RISK ASSESSMENT Reminder (or local equivalent) on cover sheet
- Collection of risk assessment data for all patients
- Capture risk assessment data through existing encounter data capture tools (PCE, AICS, CPRS)
- Resolve reminders through CPRS point-and-click Reminder Resolution tools

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NOTE: Patch LR*5.2*260 will terminate the National Center for Health Promotions (NCH) Cholesterol and PAP Smear Screening daily transmission to AAC until further notice from the National Center for Health Promotion. Please notify those responsible for NCH at your site.

Pre-Installation

This Hepatitis C Extract application consists of the following patches:

- Clinical Reminders patch PXRM*1.5*1, which adds two new reminders and eighteen new reminder terms and software to support data extraction, based on three national reminders defined for the Hepatitis C initiative.
- Laboratory EPI patch LR*5.2*260, which updates software released in Laboratory EPI patches LR*5.2*132 and LR*5.2*175.
- Inpatient Medications patch PSJ*5*48, which provides a new API to access specific medications provided to patients within a date range.
- Outpatient Pharmacy patch PSO*7*45, which provides a new API to access specific medications provided to patients within a date range.

Required Software

Package/Patch	Namespace	Version	Comments
Clinical Reminders	PXRM	1.5	
HL7	HL	1.6	Fully patched
Patch HL*1.6* 34			
Inpatient Medications	PSJ	5.0	Fully patched
Kernel	XU	8.0	Fully patched
Laboratory	LR	5.2	Fully patched

LR*5.2*132
  LR*5.2*157
  LR*5.2*175
  LR*5.2*242			

MailMan	XM	7.1	Fully patched
XM*DBA*116 (NCH-Lab Domain)			
Outpatient Pharmacy	PSO	7.0	Fully patched
Pharmacy Data Management (PDM)	PSS	1.0	Fully patched
PSS*1*31			Required in order to use generic drug findings in reminders
VA FileMan	DI	22	Fully patched

Files installed

Two new files are distributed: REMINDER EXTRACT SUMMARY (#810.3), and LREPI REMINDER LINK (#69.51). One new global (^PXRMXT(810.3,) is distributed, which temporarily stores the results of reminder data extracted to send to the EPI database.

File Name	File #	Global	Data
REMINDER EXTRACT SUMMARY	810.3	PXRMXT(810.3,	NO
REMINDER TERM	811.5	PXRMD(811.5,	YES
REMINDER DEFINITION	811.9	PXD(811.9,	YES
LREPI REMINDER LINK	69.51	LR(69.51,	Data added by LR*5.2*260 post-installation process

Routines Installed

PXRMLOGX	PXRMP1I	PXRMP1IE	PXRMTERM	PXRMXX	PXRMXX1
PXRMXX2	PXRMXXT	LR260	LREPI	LREPI1	LREPI1A
LREPI2	LREPI3	LREPI4	LREPIAK	LREPIPH	LREPIRP
PSOORAPI	PSJORAPI				

Routine Checksums

Routine	Before Checksum	After Checksum
LR260	NEW	10238627 (Deleted after install)
LREPI	11741568	14217525
LREPI1	10215540	10654552
LREPI1A	5536163	5834647
LREPI2	5729687	7199135
LREPI3	3617464	5462995
LREPI4	1715994	1903453
LREPIAK	2866307	3640656
LREPIPH	NEW	5818757
LREPIRP	6008472	5973015
LREPISRV	NEW	12552990
PSJORAPI	NEW	6536800
PSOORAPI	NEW	13408756
PXRMLOGX	3009219	3005995
PXRMP1I	NEW	2412825
PXRMP1IE	NEW	349212
PXRMTERM	6249864	6249864
PXRMXX	2465756	9832947
PXRMXX1	NEW	8675493
PXRMXX2	NEW	8200381
PXRMXXT	NEW	573203

Estimated Installation Time

Installation should take less about five minutes.

Installation

This build can be loaded with users on the system. Updating of cross-references for the new data added to the files will occur during the install. Installation should take about five minutes. *The install needs to be done by a person with programmer access set to "@."*

1. **Retrieve the Hepatitis C Extract build**

    Use FTP to access the build, HEP_C_EXTRACT_1_0.KID, from the following locations:

SITE	IP ADDRESS	DIRECTORY
Albany	152.127.1.5	[ANONYMOUS.SOFTWARE]
Hines	152.129.1.110	[ANONYMOUS.SOFTWARE]
Salt Lake City	152.131.2.1	[ANONYMOUS.SOFTWARE]

2. **Install the build first in a training or test account.**

    Installing in a non-production environment will give you time to get familiar with new functionality and set up files prior to installing the software in production.

3. **Load the distribution.**

    In programmer mode, do ^XUP, select the Kernel Installation & Distribution System menu (XPD MAIN), select the Installation menu option, then the option, Load a Distribution. Enter your directory name and **HEP_C_EXTRACT_1_0.KID** at the Host File prompt.

    Example

    ```
    Select Installation Option: LOAD a Distribution
    Enter a Host File: C:\anonymous\hep_c_extract_1_0.kid

    KIDS Distribution saved on Aug 29, 2000@10:57:42
    Comment: Hepatitis C Extract 1.0

    This Distribution contains Transport Globals for the following Package(s):
       HEPATITIS C EXTRACT 1.0
       PSO*7.0*45
       PSJ*5.0*48
       PXRM*1.5*1
       LR*5.2*260
    Distribution OK!

    Want to Continue with Load? YES// <Enter>
    Loading Distribution...

       HEPATITIS C EXTRACT 1.0
       PSO*7.0*45
       PSJ*5.0*48
    Build PXRM*1.5*1 has an Enviromental Check Routine
    Want to RUN the Environment Check Routine? YES// <Enter>
       PXRM*1.5*1
    Will first run the Environment Check Routine, PXRMP1IE

       LR*5.2*260
    Use INSTALL NAME: HEPATITIS C EXTRACT 1.0 to install this Distribution.
    ```

From the Installation menu, you may elect to use the following options (when prompted for INSTALL NAME, enter HEPATITIS_C_EXTRACT).

NOTE: Option a, Backup a Transport Global, must be referenced by the primary build name of HEPATITIS_C_EXTRACT. Option b can be run by using either the primary build name of HEPATITIS_C_EXTRACT or the individual patch names (e.g., PXRM*1.5*1, etc.). Options c and d must be run for each individual build (using the patch names) included in this transport.

a. **Backup a Transport Global**
   This option will create a backup message of any routines exported with the patch. It will NOT back up any other changes such as DDs or templates.
b. **Compare Transport Global to Current System**
   This option will allow you to view all changes that will be made when the patch is installed. It compares all components of the patch (routines, DDs, templates, etc.).
c. **Verify Checksums in Transport Global**
   This option will allow you to ensure the integrity of the routines that are in the transport global. If there are any discrepancies, do not run the Install Package(s) option. Instead, run the Unload a Distribution option to remove the Transport Global from your system. Retrieve the file again from the anonymous directory (in case there was corruption in FTPing) and Load the Distribution again. If the problem still exists, log a NOIS and/or call the national Help Desk (1-888-596-HELP) to report the problem.
d. **Print Transport Global**
   This option will allow you to view the components of the KIDS build.

4. **Unmap any mapped PXRM* and LREPI* routines.**

PXRMLOGX	PXRMP1I	PXRMTERM	PXRMXX	LREPI	LREPI1
LREPI1A	LREPI2	LREPI3	LREPI4	LREPIAK	LREPIRP

5. **Disable journaling on the following globals: LR, PXRMD, and PXD.**

6. **Install the package.**

   The install needs to be done by a person with programmer access set to "@."

   From the Installation menu on the Kernel Installation and Distribution System (KIDS) menu, run the option Install Package(s). Select the package 'HEPATITIS C EXTRACT' and proceed with the install. If you have problems with the installation, log a NOIS and/or call the National Help Desk to report the problem.

```
Select Installation & Distribution System Option: Installation
Select Installation Option: INSTALL PACKAGE(S)
Select INSTALL NAME:  HEPATITIS C EXTRACT
```

   ▪ Answer "NO" to the following prompts:
     Want KIDS to Rebuild Menu Trees Upon Completion of Install? YES// NO   << font
     Want KIDS to INHIBIT LOGONs during install? YES// NO
     Want to DISABLE Scheduled Options, Menu Options, and Protocols? YES// NO

Installation Example

```
Select Installation Option: install Package(s)
Select INSTALL NAME:HEPATITIS C EXTRACT 1.0  Loaded from Distribution 8/31/00@11:03:50
     => Hepatitis C Extract 1.0  ;Created on Aug 29, 2000@10:57:42

This Distribution was loaded on Aug 31, 2000@11:03:50 with header of
   Hepatitis C Extract 1.0  ;Created on Aug 29, 2000@10:57:42
   It consisted of the following Install(s):
HEPATITIS C EXTRACT 1.0     PSO*7.0*45    PSJ*5.0*48     PXRM*1.5*1
     LR*5.2*260
Checking Install for Package HEPATITIS C EXTRACT 1.0

Install Questions for HEPATITIS C EXTRACT 1.0

Checking Install for Package PSO*7.0*45

Install Questions for PSO*7.0*45

Checking Install for Package PSJ*5.0*48

Install Questions for PSJ*5.0*48

Checking Install for Package PXRM*1.5*1
Will first run the Environment Check Routine, PXRMP1IE

Install Questions for PXRM*1.5*1

Incoming Files:

   810.3     REMINDER EXTRACT SUMMARY

   811.5     REMINDER TERM  (including data)
Note:  You already have the 'REMINDER TERM' File.
I will OVERWRITE your data with mine.

   811.9     REMINDER DEFINITION  (including data)
Note:  You already have the 'REMINDER DEFINITION' File.
I will REPLACE your data with mine.

Want KIDS to Rebuild Menu Trees Upon Completion of Install? YES// n  NO

Checking Install for Package LR*5.2*260

Install Questions for LR*5.2*260

Incoming Files:

   69.51     LREPI REMINDER LINK

Want KIDS to Rebuild Menu Trees Upon Completion of Install? YES// n  NO

Want KIDS to INHIBIT LOGONs during the install? YES// n  NO
Want to DISABLE Scheduled Options, Menu Options, and Protocols? YES// n  NO

Enter the Device you want to print the Install messages.
You can queue the install by enter a 'Q' at the device prompt.
Enter a '^' to abort the install.

DEVICE: HOME//   Telnet Device
```

```
 Install Started for HEPATITIS C EXTRACT 1.0 :
                Aug 31, 2000@11:04:49

Build Distribution Date: Aug 29, 2000

 Installing Routines:
                Aug 31, 2000@11:04:49

 Install Started for PSO*7.0*45 :
                Aug 31, 2000@11:04:49

Build Distribution Date: Aug 28, 2000

 Installing Routines:
                Aug 31, 2000@11:04:49

 Updating Routine file...

 Updating KIDS files...

 PSO*7.0*45 Installed.
                Aug 31, 2000@11:04:49

 Install Message sent #6163346

 Install Started for PSJ*5.0*48 :
                Aug 31, 2000@11:04:49

Build Distribution Date: Aug 28, 2000

 Installing Routines:
                Aug 31, 2000@11:04:49

 Updating Routine file...

 Updating KIDS files...

 PSJ*5.0*48 Installed.
                Aug 31, 2000@11:04:50

 Install Message sent #6163347

 Install Started for PXRM*1.5*1 :
                Aug 31, 2000@11:04:50

Build Distribution Date: Aug 29, 2000

 Installing Routines:
                Aug 31, 2000@11:04:50

 Running Pre-Install Routine: PRE^PXRMP1I

 Installing Data Dictionaries:
                Aug 31, 2000@11:04:51

 Installing Data: .
                Aug 31, 2000@11:04:55

 Installing PACKAGE COMPONENTS:

 Installing PRINT TEMPLATE

 Installing SORT TEMPLATE
```

```
 Installing OPTION
              Aug 31, 2000@11:04:56

 Running Post-Install Routine: POST^PXRMP1I

 Updating Routine file...

 Updating KIDS files...

 PXRM*1.5*1 Installed.
              Aug 31, 2000@11:04:56

 Install Message sent #6163348

 Install Started for LR*5.2*260 :
              Aug 31, 2000@11:04:59

Build Distribution Date: Aug 28, 2000

 Installing Routines:
              Aug 31, 2000@11:04:59

 Installing Data Dictionaries:
              Aug 31, 2000@11:04:59

 Installing PACKAGE COMPONENTS:

 Installing OPTION
              Aug 31, 2000@11:04:59

 Running Post-Install Routine: ^LR260

 Updating Routine file...
                                    LR*5.2*260
--------------------------------------------------------------------------------

 Updating KIDS files...

 LR*5.2*260 Installed.
              Aug 31, 2000@11:04:59

 Install Message sent #6163351

 Updating Routine file...

 Updating KIDS files...

 HEPATITIS C EXTRACT 1.0 Installed.
              Aug 31, 2000@11:05:02

 No link to PACKAGE file

 NO Install Message sent
--------------------------------------------------------------------------------
         [----------------------------------------------------------------]
   100%  |              25              50              75                |
Complete  [----------------------------------------------------------------]



Install Completed
```

7. Build File Print

Use the KIDS Build File Print option for a complete listing of package components (e.g., routines and options) exported with this software.

8. Install File Print

Use the KIDS Install File Print option to print out the results of the installation process.

9. Enable journaling, if disabled in installation step 5.

No journaling needs to be added for the new PXRMXT(global.

10. Map PXRM and LREPI routines, if unmapped in a pre-installation step.

11. Post-installation routine

The post-install routine, LR260, performs three automated functions. The routine will be automatically deleted when the install has finished.

a. Three entries will be added to the LREPI REMINDER LINK (#69.51) file. These are VA-NATIONAL EPI LAB EXTRACT, VA-NATIONAL EPI RX EXTRACT, and VA-HEP C RISK ASSESSMENT.
   NOTE: The two extract reminders replace VA-NATIONAL EPI DB EXTRACT, exported with Clinical Reminders V. 1.5.

b. Three entries will be added to the LAB SEARCH/EXTRACT (#69.5) file: "HEPATITIS C ANTIBODY NEG," "HEPATITIS A ANTIBODY POS," and "HEPATITIS B POS." Please refer to the LR*5.2*260 Technical and Users Guide for instructions on populating parameters to these entries for your site.

c. Termination of the National Center for Health Promotion (NCH) Cholesterol and PAP Smear Screening daily transmission to AAC until further notice. Please notify those responsible for NCH at your site.

Setup and Maintenance

The following are steps for setting up your system so that hepatitis data will be extracted to send in monthly updates to populate the national EPI database. Some of these steps may be performed before the package is installed. The steps listed here may be performed by different members of the Hepatitis C Extract team, whose membership is defined in Step 1 below. However, all setup requires coordination among the team members.

We recommend that you print a copy of the abbreviated checklist (Appendix D). This will give you an overview of the steps involved. Then, as you go through the more detailed steps described here, check off the steps in the checklist as you complete them.

The setup involves four files. IRMS should provide access to the Reminder Managers Menu [PXRM MANAGERS MENU] and the Lab Search/Extract Primary Menu [LREPI SEARCH EXTRACT MENU] for the appropriate team members.

> Reminder Definition file (#811.9)
> Reminder Term file (#811.5)
> Lab Search/Extract file (#69.5)
> Lab Search/Extract Reminders file (#69.51)

The data validation involves one file, Reminder Extract Summary (#810.3). IRMS should provide READ access to team members.

Setup Steps

1. Establish a Hepatitis C Extract Team at your site.

Include the following:
- IRM staff involved with installation and/or setup
- Laboratory Information Manager (LIM), Lab ADPAC, or expert in lab tests used by the Laboratory package
- Pharmacy ADPAC or expert in medications used by the local pharmacy.
- Clinical Reminders Manager
- AICS encounter form application coordinator
- CPRS application coordinator
- Individual responsible for reviewing the current results of the LREPI (monthly) runs
- Hepatitis C Coordinator

This team will be responsible for creating an implementation plan based on activities described in the following checklist. It is also important to have clinicians involved who use a Hepatitis C risk assessment reminder; otherwise, your logic for data acquisition may be incomplete and the work done by your facility toward assessing patients will not be captured and rolled-up to the national EPI database.

Your team needs to determine what the clinicians use at your site on encounter forms to collect the Directives' risk assessment data. Some sites use health factors with different names, some use education topics or exams.

Some sites haven't been collecting this data electronically; clinicians documented the risk factor assessment on paper or within progress notes. These sites will not have a way to get risk assessment information to the EPI database. If you haven't been collecting risk assessment data in a fashion that can be used by reminders, you need to determine how to incorporate collection of risk assessment data at your site.

2. **Print and review the following reminder definitions.** *Do not make any changes to these reminders.* You need to review the definitions in order to understand how they use reminder terms.
   Option: Inquire about Reminder Definition on the *Reminder Management Menu.*

✔	Reminder	Description
	VA-HEP C RISK ASSESSMENT	This reminder is used to extract Hepatitis C risk assessment data.
	VA-NATIONAL EPI LAB EXTRACT	This reminder is used to extract laboratory data related to Hepatitis treatment.
	VA-NATIONAL EPI RX EXTRACT	This reminder is used to extract pharmacy data related to Hepatitis C.

3. **Print the Reminder Term definitions for the finding item/term in the Hepatitis C reminder definitions.**

Before using Hepatitis C reminders, sites must use the Reminder Term Management options to define/map the local findings that are used to represent the national reminder terms. Your site's Hepatitis C Implementation team needs to understand the intent of the reminder terms for this project.

3a. The table below may help you understand the intent of the national reminder terms:

Reminder Term	Description
ALANINE AMINO (ALT) (SGPT)	This term represents serum glutamic-pyruvic transaminase or ALT laboratory tests. Enter the finding items from the Laboratory Test file (#60) that represent the SGPT test. National terms related to this term: Wkld Code file (#64): The national lab test term is Transferase Alanine Amino SGPT.
BILIRUBIN	This term represents laboratory tests for Bilirubin. The following national laboratory test names may be used to identify the local laboratory tests to be mapped as findings for this term. National Lab Test entries for Bilirubin: BILIRUBIN CONJUGATED Bilirubin Conjugated BILIRUBIN DIRECT Bilirubin Direct BILIRUBIN STICK Bilirubin Stick BILIRUBIN TOTAL Bilirubin Total BILIRUBIN TOTAL AND DIRECT Bilirubin Total and Direct BILIRUBIN UNCONJUGATED Bilirubin Unconjugated

Understanding the intent of the national reminder terms, cont'd

Reminder Term	Description
DECLINED HEP C RISK ASSESSMENT	This term is released with the health factor NO RISK FACTORS FOR HEP C. Add any local findings that represent this term to the term's findings.
HAV Ab positive	This term represents Hepatitis A virus antibody total positive. Enter findings for the laboratory tests that represent this test. Use the condition field to clearly identify the positive results. (e.g., I (V="positive")!(V="pos")!(V="+")
HAV IgG positive	This term represents laboratory tests for Hepatitis A virus antibody immunoglobulin G positive. Enter findings from the laboratory test file that are used locally to represent this term. Use the condition field to clearly identify the positive results. e.g., I (V="positive")!(V="Pos")!(V="+")
HAV IgM Ab positive	This term represents laboratory tests for Hepatitis A virus antibody immunoglobulin M positive. Enter findings from the laboratory test file that are used locally to represent this term. Use the condition field to clearly identify the positive results. e.g., I (V="positive")!(V="Pos")!(V="+")
HBc Ab IgM positive	This term represents laboratory tests for Hepatitis B core antibody immunoglobulin M positive. Enter findings from the laboratory test file that are used locally to represent this term. Use the condition field to clearly identify the positive results. e.g., I (V["positive")!(V="+")
HBe Ag	This term represents laboratory tests for Hepatitis B e antigen positive. Enter findings from the laboratory test file that are used locally to represent this term. Use the condition field to clearly identify the positive results. e.g., I (V["positive")!(V="+")
HBs Ab	This term represents reminder tests for Hepatitis B surface antibody positive. Enter findings from the laboratory test file that are used locally to represent this term. Use the condition field to clearly identify the positive results. e.g., I (V["positive")!(V="+")
HBs Ag positive	This term represents laboratory tests for HBs Ag positive. Another name for this is Hepatitis B surface antigen positive. Enter findings from the laboratory test file that are used locally to represent this term. Use the condition field to clearly identify the positive results. e.g., I (V["positive")!(V="+")
HEPATITIS C INFECTION	This term is released with the reminder taxonomy VA -HEPATITIS C INFECTION. Note: This taxonomy can be copied and modified for local changes. (e.g. To eliminate using problem list diagnosis from the findings, use the new PATIENT DATA SOURCE field to control where to look for the HEPATITIS C INFECTION diagnosis. Alternatively, you can define an expiration period to consider the diagnosis valid.) Add any other local findings that represent this term as the findings for the term.
HEPATITIS C VIRUS ANTIBODY NEGATIVE	Add local HCVAb lab tests with a condition to check for a negative result. An example of the condition field might be: I V="negative" or I (V["N")!(V["n"). The text used in the I V="text" condition will depend on how the local lab package stores the HCVAb lab result.
HEPATITIS C VIRUS POSITIVE	Add local HCVAb lab tests with a condition to check for a positive result. An example of the condition field might be: I V="positive" or I (V["P")!(V["p"). The text used in the I V="text" condition will depend on how the local lab package stores the HCVAb lab result.
INTERFERON ALFA-2A	This term represents the VA GENERIC drug for Interferon alfa-2A, Recombinant. The VA GENERIC drug is distributed as a finding for this term. Local dispense drugs may be added if desired: however, if your site has matched the local dispense drug to the National Drug File, the VA GENERIC drug name will automatically be used.

Reminder Term	Description
INTERFERON ALFA-2B	This term represents the VA GENERIC drug for Interferon alfa-2B, Recombinant. The VA GENERIC drug is distributed as a finding for this term. Local dispense drugs may be added if desired: however, if your site has matched the local dispense drug to the National Drug File, the VA GENERIC drug name will automatically be used.
INTERFERON ALFA-2B/RIBAVIRIN	This term represents the VA GENERIC drug for Interferon alfa-2B/Ribavirin. The VA GENERIC drug is distributed as a finding for this term. Local dispense drugs may be added if desired: however, if your site has matched the local dispense drug to the National Drug File, the VA GENERIC drug name will automatically be used.
INTERFERON ALFA-3N	This term represents the VA GENERIC drug for Interferon alfa-3N.. The VA GENERIC drug is distributed as a finding for this term. Local dispense drugs may be added if desired: however, if your site has matched the local dispense drug to the National Drug File, the VA GENERIC drug name will automatically be used.
INTERFERON ALFACON-1	This term represents the VA GENERIC drug for Interferon alfacon-1.. The VA GENERIC drug is distributed as a finding for this term. Local dispense drugs may be added if desired: however, if your site has matched the local dispense drug to the National Drug File, the VA GENERIC drug name will automatically be used.
INTERFERON BETA-1A	This term represents the VA GENERIC drug for Interferon beta-1A.. The VA GENERIC drug is distributed as a finding for this term. Local dispense drugs may be added if desired: however, if your site has matched the local dispense drug to the National Drug File, the VA GENERIC drug name will automatically be used.
INTERFERON BETA-1B	This term represents the VA GENERIC drug for Interferon beta-1B. The VA GENERIC drug is distributed as a finding for this term. Local dispense drugs may be added if desired: however, if your site has matched the local dispense drug to the National Drug File, the VA GENERIC drug name will automatically be used.
NO RISK FACTORS FOR HEP C	This term is released with the health factor NO RISK FACTORS FOR HEP C. Add any local findings that represent this term to the term's findings.
PREVIOUSLY ASSESSED HEP C RISK	This term is released with the health factor PREV POSITIVE TEST FOR HEP C. Add any local findings that represent this term to the term's findings. This term may be used to document historical positive tests or diagnoses completed outside the facility. You can enter a Free text comment on where and when this previous assessment occurred and what criteria (i.e. lab test, diagnosis) were used.
RIBAVIRIN	This term represents the VA GENERIC drug for Ribavirin. The VA GENERIC drug is distributed as a finding for this term. Local dispense drugs may be added if desired: however, if your site has matched the local dispense drug to the National Drug File, the VA GENERIC drug name will automatically be used.
RISK FACTOR FOR HEPATITIS C	This term is released with the health factor RISK FACTOR FOR HEPATITIS C. Add any local findings that represent this term to the term's findings.
TRANSFERASE (AST) (SGOT)	This term represents serum glutamic-oxaloacetic transaminase or AST laboratory procedures. Enter the finding items from the Laboratory Test file (#60) that represent this procedure. National terms related to this term. WKLD CODE file (#64): The national lab test term is Transferase Aspartate SGOT

Mapping Reminder Terms

The Hepatitis C Implementation Team will identify the local finding items used to represent national reminder terms. Detailed mapping steps are given in step 4 for laboratory setup, and in step 5 for pharmacy setup and non-service-specific data collected for Hepatitis C risk assessment. The following are examples of the steps your site will use for mapping local finding items to the national reminder terms.

Example of mapping a laboratory test to a reminder term:
HEP B SURFACE Ag laboratory test to HBs Ag positive

```
Select Reminder Term Management Option: TE Reminder Term Edit
Select Reminder Term: HBs Ag positive
         ...OK? Yes// <Enter>  (Yes)
SPONSOR: INFECTIOUS DISEASES PO, VAHQ// <Enter>
DATE ADDED: APR 24,2000// <Enter>
DESCRIPTION:
  1> This term represents laboratory tests for HBs Ag positive. Another name
  2> for this is Hepatitis B surface antigen positive. Enter findings from the
  3> laboratory test file that are used locally to represent this term. Use the
  4> condition field to clearly identify the positive results. e.g., I
  5> (V["positive"])!(V="+")
EDIT Option: <Enter>
Select FINDING ITEM: HEP B SURFACE Ag
  FINDING ITEM: HEP B SURFACE Ag// <Enter>           This is the local
  EFFECTIVE PERIOD: <Enter>                          finding that is
  USE INACTIVE PROBLEMS: <Enter>                     mapped to the
  WITHIN CATEGORY RANK: <Enter>                      national term, HBs
  CONDITION: I (V["POS")!(V="+")                     AG positive
  MH SCALE: <Enter>
Select FINDING ITEM: <Enter>
Select Reminder Term: <Enter>
```

Example of Mapping Pharmacy finding items to national Reminder Terms:
INTERFERON BETA-1A (AVONEX/BIOGEN) to INTERFERON BETA-1A

```
Select Reminder Term: INTER
     1    INTERFERON ALFA-2A                      NATIONAL
     2    INTERFERON ALFA-2B                    NATIONAL
     3    INTERFERON ALFA-2B/RIBAVIRIN           NATIONAL
     4    INTERFERON ALFA-3N                      NATIONAL
     5    INTERFERON ALFACON-1                  NATIONAL
     6    INTERFERON BETA-1A                      NATIONAL
     7    INTERFERON BETA-1B                     NATIONAL
CHOOSE 1-7: 6  INTERFERON BETA-1A               NATIONAL
Select FINDING ITEM: INTERFERON BETA-1A//<Enter>
  FINDING ITEM: INTERFERON BETA-1A//<Enter>
  EFFECTIVE PERIOD: 45D//<Enter>
  USE INACTIVE PROBLEMS: <Enter>
  WITHIN CATEGORY RANK: <Enter>
  CONDITION: <Enter>
  MH SCALE: <Enter>
Select FINDING ITEM: INTERFERON BETA-1A (AVONEX/BIOGEN)          IM700
**DISPENSE A MAX OF 30 DAYS SUPPLY ONLY (1 BOX)**
  Are you adding 'INTERFERON BETA-1A (AVONEX/BIOGEN)' as
    a new FINDINGS (the 2ND for this REMINDER TERM)? No// Y  (Yes)
  EFFECTIVE PERIOD: <Enter>
  USE INACTIVE PROBLEMS: <Enter>
  WITHIN CATEGORY RANK: <Enter>
  CONDITION: ^
Select FINDING ITEM: <Enter>
```

Defining the CONDITION:

The CONDITION is not mandatory on all finding items mapped to reminder terms. The CONDITION field needs to be defined for laboratory finding items requiring additional logic to identify positive and negative results. The CONDITION for a finding item mapped to a Reminder Term must be written in M code based on very specific Boolean formatting (e.g., I V["POS"]). The CONDITION references the value returned from the reminder evaluation results for the finding. Each type of finding has a specific field that provides the value available to use in the CONDITION logic. This value is generically referred to in the CONDITION field as V. If the finding value is text, enclose the Boolean logic comparison value in quotes (e.g., "positive"). If the finding value is numeric, do not use quotes (e.g.,3). Use VA FileMan help for a detailed explanation of the CONDITION field.

Boolean Logic:
An IF (I) statement is used to evaluate the value. The value is always identified as V in the statement, regardless of the type of finding. If the condition logic statement evaluates to true, the finding is considered as found (true); otherwise the finding is considered as not found (false).

Typical examples of the Boolean logic CONDITION are as follows:

CONDITION field	Represents
I V=3	Education Topic's Level of Understanding = 3
I V="H"	Health Factor's Level/Severity="H"
I(V["POS"])!(V["pos"])	Lab test values (print codes are the values if defined in the laboratory test file)
I ($P(V,"/",1)>140)&($P(V,"/",2)>90)	Elevated blood pressure systolic *and* diastolic values
I ($P(V,"/",1)>140)!($P(V,"/",2)>90)	Elevated blood pressure systolic *or* diastolic values
I $P(V,U,2)["BLACK"	Race description which includes black

Definitions of Relational Operators
        &   (logical and)
        !   (logical or)
        >   (greater than)
        <   (less than)
        =   (equals)
        [(contains)

The ' (not) operator reverses the meaning of each of these. Some examples: '= (not equal), '[(does not contain), '> (is not greater than). The not operator is never used with & or !. You would say A&'B never A'&B. &, !, and ' are also used when creating custom cohort or resolution logic.

Another important concept is the use of parentheses to control the order of evaluation. Things inside of parentheses are done first. When you have a complex string, it is important to use them. I A&B!C&D has a different meaning than I (A&B)!(C&D).

Summary of Finding Items

Finding Item	Field Value Used	Example M Code
Drug	None	
Education Topic	Level of understanding	I V=3
Exam	Result	I V="N"
Health Factor	Level/severity	I V="H"
Immunization	Series	I V="P"
Laboratory Test	Result Value	I V>130
Mental Health Instrument	Raw score	I V=1
Orderable Item	Status	I V="complete"
Radiology Procedure	None	
Reminder Computed Finding	Determined by programmer- See Manager Manual	
Reminder Taxonomy	None	
Skin Test	Result	I V="N"
VA Drug Class	None	
VA Generic	None	
Vital Measurement	Rate	I V>27

For details about allowed CONDITIONS for each finding item, see the *Clinical Reminders Manager Manual*.

VA FileMan Print from the Reminder Term File

You can run a VA FileMan Print from the Reminder Term File (#811.5) that just sorts by name, and then prints name, finding, and condition. This is a useful list, especially when needing to map so many lab tests and you're not sure what values have been defined.

You should run this printout for the drugs as well. You may want to check the drug REBETRON as this is the CMOP name; at Fargo we did not have Ribavirin as a name.

Example

```
Print File Entries

OUTPUT FROM WHAT FILE: REMINDER TERM
SORT BY: NAME// <Enter>
START WITH NAME: FIRST// <Enter>

FIRST PRINT FIELD: [RM TERM W/FINDING CONDITION
                            (Aug 09, 2000@15:48) User #193 File #811.5
WANT TO EDIT 'RM TERM W/FINDING CONDITION' TEMPLATE? No// Y  (Yes)
NAME: RM TERM W/FINDING CONDITION  Replace <Enter>
READ ACCESS: @// <Enter>
WRITE ACCESS: @// <Enter>
FIRST PRINT FIELD: NAME// <Enter>
THEN PRINT FIELD: FINDINGS//<Enter>     (multiple)
  THEN PRINT FINDINGS SUB-FIELD: FINDING ITEM//  <Enter>
  THEN PRINT FINDINGS SUB-FIELD: CONDITION// <Enter>
  THEN PRINT FINDINGS SUB-FIELD: <Enter>
THEN PRINT FIELD:
Heading (S/C): REMINDER TERM LIST// <Enter>
STORE PRINT LOGIC IN TEMPLATE:
DEVICE: 0;;99  TELNET    Right Margin: 80//<Enter>
```

```
REMINDER TERM LIST                          AUG 10,2000  11:03    PAGE 1
NAME
    FINDING ITEM                  CONDITION
--------------------------------------------------------------------------------


ALANINE AMINO (ALT) (SGPT)
    ALT
BILIRUBIN
    BILIRUBIN, TOTAL
    DIRECT BILIRUBIN
DECLINED HEP C RISK ASSESSMENT
    DECLINED HEP C RISK ASSESSMENT
HAV Ab positive
    HEPATITIS A ANTIBODY,TOTAL     I V="REACTIVE"
    HEP A AB,T(49.42)CCL283(DC 3/3  I (V["POS"])!(V["Pos")
HAV IgG positive
HAV IgM Ab positive
    HEPATITIS A AB,IGM             I V="REACTIVE"
HBc Ab IgM positive
    HEPATITIS B CORE AB,IGM        I V="REACTIVE"
HBe Ag positive
HBs Ab positive
    HEPATITIS B SURFACE AB         I V="REACTIVE"
HBs Ag positive
    HEPATITIS B SURFACE AG         I V="REACTIVE"
    HBSAG-*Needlestick($40)Meritic  I (V["POS"])!(V["Pos")
HEP C VIRUS ANTIBODY NEGATIVE
    HEPATITIS C AB                 I (V["NEG"])!(V["Neg")
    HEP C RNA QUALITATIVE-MVA(for   I (V["NEG"])!(V["Neg")
HEP C VIRUS ANTIBODY POSITIVE
    HEPATITIS C AB                 I (V["POS"])!(V["Pos")
    HEP C RNA QUALITATIVE-MVA(for   I (V["POS"])!(V["Pos")
HEPATITIS C INFECTION
    VA-HEPATITIS C INFECTION
INTERFERON ALFA-2A
    INTERFERON ALFA-2A
INTERFERON ALFA-2B
    INTERFERON ALFA-2B
INTERFERON ALFA-2B/RIBAVIRIN
    INTERFERON ALFA-2B/RIBAVIRIN
INTERFERON ALFA-3N
    INTERFERON ALFA-3N
INTERFERON ALFACON-1
    INTERFERON ALFACON-1
INTERFERON BETA-1A
    INTERFERON BETA-1A
INTERFERON BETA-1B
    INTERFERON BETA-1B
NO RISK FACTORS FOR HEP C
    NO RISK FACTORS FOR HEP C
PREVIOUSLY ASSESSED HEP C RISK
    PREV POSITIVE TEST FOR HEP C
RIBAVIRIN
    RIBAVIRIN
RISK FACTOR FOR HEPATITIS C
    RISK FACTOR FOR HEPATITIS C
TRANSFERASE (AST) (SGOT)
    AST
```

3b. Review the pre-mapped findings (VA Generic drug names, health factors, etc.).
Option: List Reminder Terms on the *Reminder Term Management menu*

VA-HEP C RISK ASSESSMENT

✓	Reminder Term	Mapping
	DECLINED HEP C RISK ASSESSMENT	Distributed with health factor "DECLINE HEP C RISK ASSESSMENT"
	NO RISK FACTORS FOR HEP C	Distributed with health factor "NO RISK FACTORS FOR HEP C"
	PREVIOUSLY ASSESSED HEP C RISK	Distributed with health factor "PREV POSITIVE TEST FOR HEP C"
	RISK FACTOR FOR HEPATITIS C	Distributed with health factor "NO RISK FACTORS FOR HEP C"
	HEP C VIRUS ANTIBODY POSITIVE	Map local laboratory tests with a condition to represent the local positive results.
	HEP C VIRUS ANTIBODY NEGATIVE	Map local laboratory tests with a condition to represent the local negative results. Tip: Use the ' (not) of positive results to ensure all tests are captured as either positive or negative.
	HEPATITIS C INFECTION	Distributed with a taxonomy for HEPATITIS C INFECTION. Note: Extracted data is primarily based on PCE's V POV file (diagnosis for encounters)

VA-NATIONAL EPI RX EXTRACT

✓	Reminder Term	Mapping
	INTERFERON ALFA-2A	Distributed with VA GENERIC entry INTERFERON ALFA-2A
	INTERFERON ALFA-2B	Distributed with VA GENERIC entry INTERFERON ALFA-2B
	INTERFERON ALFA-2B/RIBAVIRIN	Distributed with VA GENERIC entry INTERFERON ALFA-2B/RIBAVIRIN
	INTERFERON ALFA-3N	Distributed with VA GENERIC entry INTERFERON ALFA-3N
	INTERFERON ALFACON-1	Distributed with VA GENERIC entry INTERFERON ALFACON-1
	INTERFERON BETA-1A	Distributed with VA GENERIC entry INTERFERON BETA-1A
	INTERFERON BETA-1B	Distributed with VA GENERIC entry INTERFERON BETA-1B
	RIBAVIRIN	Distributed with VA GENERIC entry RIBAVIRIN

VA-NATIONAL EPI LAB EXTRACT

✓	Reminder Term	Mapping (No Pre-mapped entries)
	HEP C VIRUS ANTIBODY NEGATIVE	
	HEP C VIRUS ANTIBODY POSITIVE	
	HAV Ab positive	
	HAV IgM Ab positive	
	HAV IgG positive	
	HBs Ab positive	
	HBs Ag positive	
	HBc Ab IgM positive	
	Hbe Ag positive	
	BILIRUBIN	
	TRANSFERASE (AST) (SGOT)	
	ALANINE AMINO (ALT) (SGPT)	

NOTE: For the VA-NATIONAL EPI LAB EXTRACT reminder, the BILIRUBIN, TRANSFERASE (AST) (SGOT), and ALANINE AMINO (ALT) (SGPT) reminder terms do not have related entries in the LAB SEARCH/EXTRACT file.

These three tests are extracted by the VA-NATIONAL EPI LAB EXRACT reminder when one of the other Laboratory tests related to this reminders' terms is found for a patient. The other laboratory tests are used in the reminder evaluation processing, as well as in Lab Search/Extract processing.

4. **Set up Reminder terms and Lab Search/Extract definitions related to the Lab Service**

Review the reminder term definitions for guidance on selecting the laboratory tests that represent the reminder terms and identify the result values that will represent positive or negative results. You can also review the LR*5.2*260 documentation for additional guidance.

For example, for the HEP C VIRUS ANTIBODY NEGATIVE term, all the results of Hepatitis C antibody testing that are not considered "positive" should be reported in this area. Therefore, all of the Hepatitis C results that your facility reports should be mapped to either the positive or the negative term for this test. Not positive terms may include "negative," "indeterminant," "indeterminate," "undetectable." Be sure that phrases that truly differentiate results are used (e.g. the results of "present" and "not present" are not truly differentiated by computer retrieval as both contain the word "present").

> **NOTE:** There are PCR-based tests used for Hepatitis C. These tests are not used at all facilities and are not yet Food and Drug Administration (FDA)-approved for diagnosis of Hepatitis C infection. As such, they should not be used for reporting purposes with this Hepatitis C Extract application. *Viral load tests* also should not be used, as they are not in the definitions that the Infectious Diseases Program Office has set for this project.

❑ **4a.** Identify the laboratory test names that represent the reminder term (finding item) in the VA-NATIONAL EPI LAB EXTRACT reminder. Additional descriptions of the lab tests for the reminder term are in the Reminder Term List file.

❑ **4b.** Identify the possible test results that can represent positive or negative results.

❑ **4c.** Define on paper the condition logic to evaluate the results. If the LAB is set up with Print Code for their tests, Clinical Reminders will use that field when evaluating the "condition." If there is no Print Code for a test, the condition as noted for the test result in file 63 will be used.

File 60 Data – note Print Code
      NAME: HEPATITIS C Ab, TOTAL   PRINT NAME: HepCab
      PRINT CODE: $J($S(X="N":"NonReac",X="P":"REACT",X="R":"REACT",1:X),LRCW)
      DATA NAME: HEPATITIS C Ab, TOTAL

File 63 Data – note the condition of the HEP C Ab Total: (NONREACTIVE)
    DATE/TIME SPECIMEN TAKEN: APR 12, 1996@08:23:16
    DATE REPORT COMPLETED: APR 19, 1996@12:50:39
     HEPATITIS C Ab, TOTAL: NONREACTIVE

For the example above, the condition logic for a negative condition should be:
I (V["NonReac") This is based on the Print Code.
If the Print Code wasn't defined, I V["NONREACTIVE" could be used.

NOTE: SGOT, SGPT, and bilirubin tests do not need any conditions for the
laboratory tests added to the Reminder Term file. Not all SGOT, SGPT and bilirubin
tests are sent to the EPI database, only the most recent SGOT, SGPT, and bilirubin
on file when a HEPATITIS A, B, or C positive test, or a HEPATITIS C negative test
is found within the reporting date range. This is controlled by the VA-NATIONAL
EPI LAB EXTRACT reminder definition. All of the lab tests are in the patient
cohort except the SGOT, SGPT, and bilirubin, which are information findings. The
Lab Search/Extract file does not include the bilirubin, SGOT, and SGPT tests, so the
only way they are included now is based on the reminder definition.

❑ **4d.** Enter the local laboratory tests (findings) that are used for the terms in the
        Reminder Term file.
        Option: Reminder Term Edit on *Term Management Menu*

❑ **4e.** Edit the lab search/extract parameters for national reminder terms with local
        laboratory tests, indicators, and indicator values.
        Option: Lab Search/Extract Parameter Setup on the *Lab Search/Extract*
        Primary Menu

For each laboratory test defined in the reminder terms, the laboratory test also
needs to be defined in the related Lab Search/Extract entry. Print the Lab
Search/Extract file (#69.5) definitions (using VA FileMan Print) to prepare for
updating the laboratory test, indicator, and indicator values. The table on the next
page summarizes the relationship between the Lab Search/Extract EPI Pathogen
parameters and the reminder terms.

Lab Search/Extract EPI Pathogen parameters and corresponding Reminder Terms

LAB SEARCH/EXTRACT file Pathogen entries	REMINDER TERM file entries
HEPATITIS A ANTIBODY POS	HAV Ab positive HAV IgM Ab positive HAV IgG positive
HEPATITIS B POS	HBs Ag positive HBc Ab IgM positive HBs Ab positive HBe Ag positive
HEPATITIS C ANTIBODY NEG	HEP C VIRUS ANTIBODY NEGATIVE
HEPATITIS C ANTIBODY POS	HEP C VIRUS ANTIBODY POSITIVE

If your site uses a test that doesn't map exactly to one of the reminder terms, map it to the closest reminder term. It is important to make sure that any test defined in the reminder term file is also defined in the Lab Search/Extract file, and vice versa. If your site doesn't use a particular test, than leave the reminder term findings unmapped. The reminder extract evaluation logic will ignore the reminder term.

☞ **NOTES: The Lag Days field (for each hepatitis entry) in the Lab Search/Extract Parameter Setup [LREPI PARAMETER SETUP] option *must* have a value of 15 entered. Setting Lag Days to 15 will cause the LREPI NIGHTLY TASK job to send the EPI extract data on the 15th of each month for the previous month's data.** If not set or set to 0, you may get messages indicating an inadvertent automated transmittal occurred.

Verify that the COUNTRY CODE field in the HL7 APPLICATION PARAMETER file for parameter EPI-LAB contains USA (United States of America), not US (United States of America), or the transmissions will be rejected.

❑ **4f.** Compare the Lab Search/Extract and related Reminder Term definitions. They need to correlate.

REMINDER TERM File Example:

Possible definition for HBs Ag positive in the REMINDER TERM file (#810.5):

```
NAME: HBs Ag positive                    TERM TYPE: NATIONAL
  SPONSOR: INFECTIOUS DISEASES PROGRAM OFFICE, VAHQ
  DATE CREATED: MAY 31, 2000            DATE LAST MODIFIED: JUN 16, 2000
 DESCRIPTION:   This term represents laboratory tests for HBs Ag positive.
 Another name for this is Hepatitis B surface antigen positive.
 Enter findings from the laboratory test file that are used locally to
 represent this term. Use the condition field to clearly identify the
 positive results. e.g., I (V["positive")!(V="+")

 In order for the VHA to do surveillance for Hepatitis B, the Infectious
 Disease Program Office is looking for laboratory evidence of infection with
 hepatitis B.  This laboratory evidence of infection includes the standard
 serological marker of the presence of Hepatitis B surface antigen.
FINDING ITEM: HEP B SURFACE Ag          CONDITION: I (V["POS")
```

LAB SEARCH/EXTRACT File Definition Example

NOTE: The first Lab Test is the equivalent of the Reminder Term for HBs Ag positive.

```
NAME: HEPATITIS B ANTIBODY POS          ACTIVE: NO
  LAG DAYS: 15                          CYCLE: MONTHLY
  PROTOCOL: LREPI                       FOLLOW PTF: YES
  REFERENCE NUMBER: 17
LAB TEST: HEP B SURFACE Ag              INDICATOR: Contains  INDICATED VALUE: POS
LAB TEST: HEP B SURFACE AB              INDICATOR: Contains  INDICATED VALUE: POS
LAB TEST: HEP B CORE AB(IgM)            INDICATOR: Contains  INDICATED VALUE: POS
LAB TEST: HEP Be ANTIGEN                INDICATOR: Contains  INDICATED VALUE: POS
LAB TEST: HEP Be ANTIGEN                INDICATOR: Contains  INDICATED VALUE: Pos
LAB TEST: HEP Be ANTIGEN                INDICATOR: Contains  INDICATED VALUE: p
LAB TEST: HEP Be ANTIGEN                INDICATOR: Contains  INDICATED VALUE: P
```

Example: Cincinnati's LAB SEARCH/EXTRACT Setup

```
LAB SEARCH/EXTRACT LIST                         AUG 15,2000  17:22    PAGE 1
                              LAG
NAME                          DAYS  ACTIVE
     LAB TEST
                                  INDICATOR          INDICATED VALUE
--------------------------------------------------------------------------------

HEPATITIS A ANTIBODY POS          15   NO
     HEP A ANTIBODY-TOTAL         Equal To          Reactive
     HEP A ANTIBODY(IgM)
     HEP A ANTIBODY(IgM)          Contains          POS
     HEPATITIS A AB(IGG)D/C(2/99) Contains          POS
     HEPATITIS A AB(IGG)D/C(2/99) Contains          Pos
     HEPATITIS A AB(IGG)D/C(2/99) Contains          P
     HEPATITIS A AB(IGG)D/C(2/99) Equal To          Reactive
     HEPATITIS A AB(IGG)D/C(2/99) Contains          p
     HEPATITIS A AB(IGG)D/C(2/99) Equal To          Pos
HEPATITIS B POS                   15   NO
     HEP B SURFACE Ag             Contains          POS
     HEP B SURFACE AB             Contains          POS
     HEP B CORE AB(IgM)           Contains          POS
     HEP Be ANTIGEN               Contains          POS
     HEP Be ANTIGEN               Contains          Pos
     HEP Be ANTIGEN               Contains          p
     HEP Be ANTIGEN               Contains          P
HEPATITIS C ANTIBODY NEG          15   NO
     HEP C ANTIBODY               Contains          NEG
     HEP C ANTIBODY               Contains          SEE COMMENT
HEPATITIS C ANTIBODY POS          15   NO
     HEP C ANTIBODY               Contains          POS
```

Example: Cincinnati's REMINDER TERM Setup

```
Select OPTION: 2  PRINT FILE ENTRIES


OUTPUT FROM WHAT FILE: LAB SEARCH/EXTRACT// REMINDER TERM
     1    REMINDER TERM                  (25 entries)
     2    REMINDER TERM SPONSOR          (1 entry)
CHOOSE 1-2: 1  REMINDER TERM             (25 entries)
SORT BY: NAME// NUMBER
START WITH NUMBER: FIRST// 1
GO TO NUMBER: LAST//<Enter>
  WITHIN NUMBER, SORT BY:
FIRST PRINT FIELD: NUMBER;C1;L4 <Enter>
THEN PRINT FIELD: NAME;C6;L30 <Enter>
THEN PRINT FIELD: .02;C38;L8 <Enter> TERM TYPE <Enter>
THEN PRINT FIELD: FINDINGS    (multiple)
  THEN PRINT FINDINGS SUB-FIELD: .01;C10;L35 <Enter> FINDING ITEM <Enter>
  THEN PRINT FINDINGS SUB-FIELD: 12;C50;L15;L55 <Enter> CONDITION
  THEN PRINT FINDINGS SUB-FIELD: <Enter>
THEN PRINT FIELD: <Enter>
Heading (S/C): REMINDER TERM LIST// CIN REMINDER TERM LIST
STORE PRINT LOGIC IN TEMPLATE: <Enter>
START AT PAGE: 1// <Enter>
DEVICE: ;;9999999  WAN    Right Margin: 80//
```

```
CIN REMINDER TERM LIST                      AUG 15,2000  17:26    PAGE 1
NUMBER
                                    TERM
     NAME                           TYPE
         FINDING ITEM
             CONDITION
--------------------------------------------------------------------------------
1    DECLINED HEP C RISK ASSESSMENT  NATIONAL
         DECLINED HEP C RISK ASSESSMENT

2    NO RISK FACTORS FOR HEP C       NATIONAL
         NO RISK FACTORS FOR HEP C

3    PREVIOUSLY ASSESSED HEP C RISK  NATIONAL
         PREV POSITIVE TEST FOR HEP C

4    RISK FACTOR FOR HEPATITIS C     NATIONAL
         RISK FACTOR FOR HEPATITIS C

5    HEP C VIRUS ANTIBODY POSITIVE   NATIONAL
         HEP C ANTIBODY
             I (V["POS")
6    HEP C VIRUS ANTIBODY NEGATIVE   NATIONAL
         HEP C ANTIBODY
             I (V'["POS")!(V["NEG")!(V["Neg")!(V["NON")!(V["Non")
7    HEPATITIS C INFECTION           NATIONAL
         VA-HEPATITIS C INFECTION

8    TRANSFERASE (AST) (SGOT)        NATIONAL
         AST
9    ALANINE AMINO (ALT) (SGPT)      NATIONAL
         ALT
10   INTERFERON ALFA-2A              NATIONAL
         INTERFERON ALFA-2A
```

Example: Cincinnati's REMINDER TERM Setup, cont'd

```
          INTERFERON ALFA-2A INJ,SOLN IV
          INTERFERON ALFA-2A 18MU/3ML
          INTERFERON ALFA-2A 3MU/ML VIAL
11   INTERFERON ALFA-2B               NATIONAL
          INTERFERON ALFA-2B
          INTERFERON ALPHA-2B 10MU/VIAL
          INTERFERON ALPHA-2B 3MU/DOSE 6 DOSE
          INTERFERON ALPHA-2B 50MU/ML 1ML
          INTERFERON ALPHA-2B 5MU/0.2ML PEN
          INTERFERON ALPHA-2B 5MU/VIAL
          INTERFERON ALPHA-2B HSA FREE 3MU/0.
          INTERFERON ALPHA-2B INJ (VA 44-4-00
12   INTERFERON ALFA-2B/RIBAVIRIN    NATIONAL
          INTERFERON ALFA-2B/RIBAVIRIN
          RIBAVIRIN/INTERFERON 1200/3 PEN COM
          RIBAVIRIN/INTERFERON 1000/3 PEN COM
          RIBAVIRIN/INTERFERON 600/3 PEN COMB
13   INTERFERON ALFA-3N               NATIONAL
          INTERFERON ALFA-3N
14   INTERFERON ALFACON-1             NATIONAL
          INTERFERON ALFACON-1
          INTERFERON ALFACON-1 15MCG/0.5ML IN
15   INTERFERON BETA-1A               NATIONAL
          INTERFERON BETA-1A
          INTERFERON BETA-1A (AVONEX) 30MCG
16   INTERFERON BETA-1B               NATIONAL
          INTERFERON BETA-1B
          INTERFERON BETA-1B 0.3MG (BETASERON
17   RIBAVIRIN                        NATIONAL
          RIBAVIRIN
          RIBAVIRIN 200MG CAP (VA 44-4-00)
18   HAV Ab positive                  NATIONAL
          HEP A ANTIBODY-TOTAL
             I (V["Reactive")!(V["R")
19   HAV IgM Ab positive              NATIONAL
          HEP A ANTIBODY(IgM)
             I (V["POS")
20   HAV IgG positive                 NATIONAL
          HEPATITIS A AB(IGG)D/C(2/99)
             I (V["P")!(V["p")!(V["Reactive")!(V["R")
21   BILIRUBIN                        NATIONAL
          TOT. BILIRUBIN
22   HBs Ag positive                  NATIONAL
          HEP B SURFACE Ag
             I (V["POS")
23   HBc Ab IgM positive              NATIONAL
          HEP B CORE AB(IgM)
             I (V["POS")
24   HBs Ab positive                  NATIONAL
          HEP B SURFACE AB
             I (V["POS")
25   HBe Ag positive                  NATIONAL
          HEP Be ANTIGEN
             I (V["P")!(V["p")
```

Lab Search/Extract Parameter Setup Examples

See the *Laboratory Patch LR*5.2*260 Emerging Pathogens (EPI) Technical and User Guide*
**for detailed instructions, illustrations, and examples to enable EPI coordinators,
Laboratory personnel, and other users to implement and maintain the Laboratory
Search/Extract software.**

Hepatitis A Antibody Positive (Reference #16)

We are looking for evidence of presence of ANY antibody to Hepatitis A, whether it is recorded
as "weakly positive," "strongly positive," "positive," or "present." If other phrases are used to
describe a test result, one should be able to differentiate responses upon entry into the program.
As an example, the words "present" and "not present" might be used to designate "positive" vs.
"negative", however, they would not allow retrieval of only the positive cases as both phrases
contain the word, "present." Also, numerical values of results (e.g. at titer value) are not readily
useable. Therefore, parameters for this are to be laboratory based and should include all tests for
antibodies against hepatitis A (see examples above).

Also, some institutions will use ICD-9 coding and problem lists as a means to abstract data on
this disease. DO NOT use these methods for this particular program. We are only abstracting
laboratory confirmed cases of antibodies against Hepatitis A.

Example:

```
                      Lab Search/Extract Primary Menu

    ENH     Lab Search/Extract Manual Run (Enhanced)
    LK      Antimicrobial Link Update
    UP      Lab Search/Extract Parameter Setup
            Lab Search/Extract Protocol Edit

Select Lab Search/Extract Primary menu Option: UP Lab Search/Extract
Parameter Setup

Select LAB SEARCH/EXTRACT NAME: ?
 Answer with LAB SEARCH/EXTRACT NAME, or REFERENCE NUMBER
 Do you want the entire 16-Entry LAB SEARCH/EXTRACT List? Y  (Yes)

Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS A ANTIBODY POS
   HEPATITIS B POS
   HEPATITIS C ANTIBODY NEG
   HEPATITIS C ANTIBODY POS
```

```
     LEGIONELLA
     LEISHMANIASIS
     MALARIA
     NCH CHOLESTEROL
     NCH PAP SMEAR
     PEN-RES PNEUMOCOCCUS
     STREPTOCOCCUS GROUP A
     TUBERCULOSIS
     VANC-RES ENTEROCOCCUS


 Select LAB SEARCH/EXTRACT NAME: HEPATITIS A ANTIBODY POS <Enter>
```

```
          LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN    Page 1 of 5

NAME: HEPATITIS A ANTIBODY POS                              ACTIVE: NO
_____
Laboratory Test(s)                 Indicator              Value
HEP A ANTIBODY-TOTAL<Enter>        Equal To<Enter>        REACTIVE<Enter>
HEP A ANTIBODY(IgM)<Enter>         Contains<Enter>        POS<Enter>
HEPATITIS A AB(IGG)D/C(2/99)<Enter> Contains<Enter>       P<Enter>
HEP A ANTIBODY-TOTAL<Enter>        Equal To<Enter>        R


Note: Enter the appropriate test for your site, and how the results are
reported.

ICDM-9                              ICDM-9 Description
<Enter>

_____
Exit     Save     Next Page     Refresh
COMMAND: N<Enter>                              Press <PF1>H for help    Insert
```

```
          LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN    Page 2 of 5

NAME: HEPATITIS A ANTIBODY POS                              ACTIVE: NO
_____
Selected Etiology                       Selected Snomed Codes
<Enter>


Antimicrobial Susceptibility         NLT Code      NLT Description
<Enter>

_____
Exit     Save     Next Page     Refresh

COMMAND: N<Enter>                              Press <PF1>H for help
Insert
```

```
          LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN    Page 3 of 5


NAME: HEPATITIS A ANTIBODY POS                              ACTIVE: NO
_____
                          Topography Selection
Include                           Exclude
<Enter>                                   <Enter>

_____
Exit     Save     Next Page     Refresh


COMMAND: N<Enter>                              Press <PF1>H for help
Insert
```

```
          LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN    Page 4 of 5


NAME: HEPATITIS A ANTIBODY POS                              ACTIVE: NO
_____

First Encounter:<Enter>                    Follow PTF:YES<Enter>
BEFORE DATE OF BIRTH:<Enter>               AFTER DATE OF BIRTH:<Enter>
Select SEX:<Enter>
_____
Exit     Save     Refresh


COMMAND: E<Enter>                              Press <PF1>H for help
```

```
          LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN    Page 5 of 5


NAME: HEPATITIS A ANTIBODY POS                      ACTIVE     NO
_____

Run Date:<Enter>                           Protocol: LREPI<Enter>   Lag Days
                                                                    must have
Run Cycle: MONTHLY<Enter>                  Lag Days 15<Enter>  ←     entry here
General Description:<TAB>
_____
Exit     Save     Refresh


COMMAND: E<Enter>                              Press <PF1>H for help
Save changes before leaving form (Y/N)?Y
```

Hepatitis B Positive (Reference #17)

Both acute and chronic diseases have significant morbidity and can contribute to mortality. Further, infection with hepatitis B can complicate the medical course of persons with other liver ailments. As such, surveillance for both acute and chronic disease is important. In order for the VHA to do surveillance for these diseases, we are looking for laboratory evidence of infection with hepatitis B.

This laboratory evidence of infection includes the following standard serological markers:
1. Presence of the hepatitis B surface antigen
2. Presence of antibodies against the Hepatitis B core antigen (in particular, the IgM antibody)
3. Presence of antibodies against the Hepatitis B surface antigen
4. Presence of the hepatitis Be antigen.

These are not all of the tests that can be done for hepatitis B, but they are the ones likely to pick up acute cases (new) or those chronic cases that are likely to be infectious to other persons. Please list only those tests at your facility that are in keeping with what we are looking for—acute cases, or those cases likely to be infectious to others.

> **NOTE:** There are advanced PCR-based tests that can measure amount of virus in the bloodstream; these are not done at all sites and have not yet been FDA-approved. As such, these PCR tests should not be used for case determination.

Example

```
              LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN    Page 1 of 5


NAME: HEPATITIS B POS                                     ACTIVE: NO
_____


Laboratory Test(s)                    Indicator                 Value
HEP B SURFACE Ag<Enter>               Contains<Enter>           POS<Enter>
HEP B SURFACE AB<Enter>               Contains<Enter>           POS<Enter>
HEP B CORE AB(IgM)<Enter>             Contains<Enter>           POS<Enter>
HEP Be ANTIGEN<Enter>                 Contains<Enter>           P<Enter>


Note: Enter the appropriate test for your site, and how the results are
reported.


ICDM-9                                ICDM-9 Description
<Enter>
_____
Exit     Save     Next Page     Refresh

COMMAND: N<Enter>                                Press <PF1>H for help    Insert
```

```
        LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN     Page 4 of 5

NAME: HEPATITIS B POS                                        ACTIVE: NO
_____

First Encounter:<Enter>                          Follow PTF: YES<Enter>

BEFORE DATE OF BIRTH:<Enter>                     AFTER DATE OF BIRTH:<Enter>

Select SEX:<Enter>                      >>>line up and space after :
_____
Exit     Save     Refresh

COMMAND: E<Enter>                                Press <PF1>H for help
```

```
        LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN      Page 5 of 5

NAME: HEPATITIS B POS                                        ACTIVE     NO
_____

Run Date:<Enter>                                 Protocol: LREPI<Enter>

Run Cycle: MONTHLY<Enter>                        Lag Days: 15<Enter>

General Description:<TAB>
_____

Exit     Save     Refresh

COMMAND: E                              Press <PF1>H for help
Save changes before leaving form (Y/N)?Y
```

Not Positive for Hepatitis C Antibody OR Hepatitis C Antibody Neg (Reference #15)
The first version of the EPI gathered data on persons who were positive for antibody against
Hepatitis C. This version will continue to gather such data. However, there are many cases, and it
is important to try to find out what differences there are in those persons who are positive for
Hepatitis C antibody as opposed to those who do not have Hepatitis C antibody present.
Therefore, please review those results that you have designated to be placed into the Hepatitis C
Antibody Positive portion of the EPI. Be sure that they truly meet the definition, as noted in Lab
Search/Extract Patch LR*5.2*175 Technical and User Guide (distributed August 1998) and the
current Laboratory Search/Extract Patch LR*5.2*260.

All the results of Hepatitis C antibody testing that are not considered "positive" should be
reported in this area.

All of the hepatitis C results that your facility reports should be mapped to either the Hepatitis C
Antibody Positive file or the Not Positive for Hepatitis C Antibody File. Not positive terms may
include "negative," "indeterminant," "indeterminate," "undetectable." As with the Hepatitis C
Antibody Positive component, be sure that phrases that truly differentiate results are used (e.g.

the results of "present" and "not present" are not truly differentiated by computer retrieval as both contain the word "present").

NOTE: There are PCR-based tests used for Hepatitis C. These tests are not used at all facilities and are not yet FDA-approved for identification of Hepatitis C disease. As such, they should not be used for reporting purposes with this iteration of EPI.

Example

```
         LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN   Page 1 of 5

NAME: HEPATITIS C ANTIBODY NEG                          ACTIVE: NO
_____
Laboratory Test(s)              Indicator               Value

HEPATITIS C RNA BY PCR (QUAL)    Contains                   n
ANTI-HEPATITIS C VIRUS          Contains                   N
"ANTI-HEPATITIS C VIRUS"

  ICDM-9                         ICDM-9 Description
_____

  Are you adding 'ANTI-HEPATITIS C VIRUS' as a new LAB TEST? No// Y

            LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN   Page 1 of 5

NAME: HEPATITIS C ANTIBODY NEG                          ACTIVE: NO
_____

 Laboratory Test(s)              Indicator               Value

ANTI-HEPATITIS C VIRUS          Contains                   N
ANTI-HEPATITIS C VIRUS          Contains                   n

  ICDM-9                         ICDM-9 Description
_____
```

NOTE: If a lab test needs to be entered more than once in the parameter setup for a particular lab search/extract pathogen name (e.g. because there is more than one test value that meets the definition), the second and subsequent tests must be placed in quotes. Even though the " " marks are used to enter the data, they don't appear in the final product.

```
         LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN    Page 4 of 5

NAME: HEPATITIS C ANTIBODY NEG                          ACTIVE: NO
_____

First Encounter:<Enter>                      Follow PTF: YES<Enter>

BEFORE DATE OF BIRTH:<Enter>                 AFTER DATE OF BIRTH:<Enter>

Select SEX:<Enter>
_____
Exit      Save      Refresh

COMMAND: E<Enter>                                 Press <PF1>H for help
```

```
          LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN        Page 5 of 5

NAME: HEPATITIS C ANTIBODY NEG                               ACTIVE    NO
_____
Run Date:<Enter>                              Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                       Lag Days: 15<Enter>
General Description:<TAB>
_____
Exit    Save     Refresh


COMMAND: E<Enter>                                  Press <PF1>H for help
Save changes before leaving form (Y/N)?Y
```

Hepatitis C Antibody Positive (Reference #2)

Hepatitis C is much more prevalent than originally thought, at least in certain key patient sub-populations. As new and more sensitive assays come into use, we seem to find more evidence of this pathogen. We are looking for evidence of exposure to Hepatitis C in patients as demonstrated by Hepatitis C antibody positivity. The need for confirmatory testing or demonstration of active disease is not currently necessary in gathering data for this program. Different facilities may use different assays for this test. What we are looking for is evidence of presence of antibody to Hepatitis C, whether it be recorded as "weakly positive," "strongly positive," positive," or "present." If other phrases are used to describe a test result, one should be able to differentiate the results upon entry into the program. As an example, the words, "present" "and "not present" would not allow retrieval of only positive cases as both phrases contain the word, "present."

> **NOTE:** There are PCR-based tests used for Hepatitis C. These tests are not used at all facilities and are not yet FDA-approved for identification of hepatitis C disease. As such, they should not be used for reporting purposes with this iteration of EPI.

Example

```
           LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN    Page 1 of 5

NAME: HEPATITIS C ANTIBODY POS                             ACTIVE: YES
_____

Laboratory Test(s)                      Indicator               Value
HEPATITIS C ANTIBODY<Enter>             Contains<Enter>             Pos<Enter>

Note: Enter the appropriate test for your site, and how the results are
reported.

ICDM-9                            ICDM-9 Description
<Enter>
_____

Exit     Save     Next Page      Refresh


COMMAND: N<Enter>                             Press <PF1>H for help    Insert
```

```
          LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN    Page 4 of 5

NAME: HEPATITIS C ANTIBODY POS                                ACTIVE: YES
_____
First Encounter:<Enter>                         Follow PTF: YES<Enter>

BEFORE DATE OF BIRTH:<Enter>                    AFTER DATE OF BIRTH:<Enter>
Select SEX:<Enter>
_____
Exit     Save     Refresh

COMMAND: E                                      Press <PF1>H for help
```

```
          LABORATORY SEARCH/EXTRACT PARAMETERS INPUT SCREEN      Page 5 of 5

NAME: HEPATITIS C ANTIBODY POS                              ACTIVE    YES
_____

Run Date:<Enter>                               Protocol: LREPI<Enter>

Run Cycle: MONTHLY<Enter>                       Lag Days: 15<Enter>

General Description:<TAB>
_____
Exit    Save     Refresh
COMMAND: E                                      Press <PF1>H for help
Save changes before leaving form (Y/N)  Y      Y no ?
```

5. **Complete definitions and mapping of Reminder Terms, in coordination with your local Hepatitis C implementation team.**

   5a. Pharmacy Service
   Drugs are defined in the REMINDER TERM file, but not in the LAB SEARCH/ EXTRACT file.
   ❑   Review pre-mapped generic names for the medication.
   ❑   Determine if the local dispense drug names that represent the pharmacy medication in the REMINDER TERM file (#810.5) are already matched to the national VA GENERIC file (#50.6). An example is available in the Appendix for using the VA FileMan print option to find dispense drugs that are not matched to the national VA GENERIC file.
   ❑   If not, either map the local dispense drug to the national VA GENERIC file or enter the local dispense drug as a finding for the Reminder Term.
       Option: Reminder Term Edit on the *Term Management Menu*

   NOTE: The majority of drugs are already mapped and require no mapping on your part, but a few local dispense drugs such as research or investigative drugs aren't matched to the VA GENERIC file.

5b. Diagnosis (optional)

❑ If necessary, change "Patient Data Source" for the national HEPATITIS C INFECTION taxonomy that is distributed with the VA-HEP C RISK ASSESSMENT reminder. This is only necessary if PCE and PTF data are the only reliable entries for diagnosis (excluding progress note). Problem List should not be used for Patient Data Source.
To change the PATIENT DATA SOURCE, do the following steps:

1) Review the content of the VA-HEPATITIS C INFECTION taxonomy. These are the diagnoses that will be looked for. *There is no need to add additional taxonomies as findings.*
Option: Inquire about Taxonomy Item on the *Taxonomy Management* menu

```
REMINDER TAXONOMY INQUIRY                      Aug 10, 2000 5:08:40 pm  Page 1
-------------------------------------------------------------------------------
        NUMBER: 2

VA-HEPATITIS C INFECTION
-----------------------------------
Brief Description:
    HEP C CODES
Patient Data Source:
Use Inactive Problems:
ICD9 Codes:
    Range  V02.62-
      Code      ICD Diagnosis
      ----      -------------
      V02.62    HEPATITIS C CARRIER

    Range  070.41-
      Code      ICD Diagnosis
      ----      -------------
      070.41    HEPATITIS C W HEPATIC COMA

    Range  070.51-
      Code      ICD Diagnosis
      ----      -------------
      070.51    HEPATITIS C W/O COMA

    Range  070.44-
      Code      ICD Diagnosis
      ----      -------------
      070.44    CH HEP C W/ COMA

    Range  070.54-
      Code      ICD Diagnosis
      ----      -------------
      070.54    CH HEP C W/O COMA

ICD0 Codes:
CPT Codes:
```

2) You can control where the diagnosis information should be extracted from for the reminder evaluation. If PCE and PTF data are the only reliable entries for diagnosis, copy the VA-HEPATITIS C INFECTION taxonomy to a local taxonomy using the Reminder Taxonomy Management menu's Copy option.

3) Change the PATIENT DATA SOURCE for the local taxonomy.

```
Select Reminder Managers Menu Option: TX  Taxonomy Management

   TL     List Taxonomy Definitions
   TI     Inquire about Taxonomy Item
   TE     Edit Taxonomy Item
   TC     Copy Taxonomy Item

Select Taxonomy Management Option: TC  Copy Taxonomy Item

Select the taxonomy item to copy: VA-HEPATITIS C INFECTION        HEP C CODES
         ...OK? Yes// <Enter>  (Yes)

PLEASE ENTER A UNIQUE NAME: HEPATITIS C INFECTION

The original taxonomy VA-HEPATITIS C INFECTION has been copied into
HEPATITIS C INFECTION.
Do you want to edit it now? YES

General Taxonomy Data
NAME: HEPATITIS C INFECTION  Replace <Enter>
BRIEF DESCRIPTION: HEP C CODES// <Enter>
PATIENT DATA SOURCE: ?
      Answer must be 1-40 characters in length.

This is a list of comma separated patient data sources.
You may use any combination of valid entries.
Valid entries are:
  IN - inpatient from PTF
  INDXLS - inpatient DXLS diagnosis only
  INPR - inpatient primary diagnosis  only
  EN - encounter PCE data
  ENPR - encounter PCE data primary diagnosis only
  PL - Problem List
  RA - radiology CPT only

PATIENT DATA SOURCE: IN,EN
USE INACTIVE PROBLEMS: <Enter>
INACTIVE FLAG: <Enter>

ICD0 Range of Coded Values
Select ICD0 LOW CODED VALUE: <Enter>

ICD9 Range of Coded Values
Select ICD9 LOW CODED VALUE: 070.54// <Enter>
  ICD9 LOW CODED VALUE: 070.54// <Enter>
  ICD9 HIGH CODED VALUE: <Enter>
Select ICD9 LOW CODED VALUE: <Enter>
CPT Range of Coded Values
Select CPT LOW CODED VALUE: <Enter>

Select the taxonomy item to copy: <Enter>
```

4) Replace the pre-mapped taxonomy finding item with the local taxonomy finding item in the REMINDER TERM file's HEPATITIS C INFECTION term. Add an effective period for this finding item, to restrict the period of time to consider a diagnosis as valid to use. (e.g., 1Y for 1 year).

```
Select Reminder Term Management Option: TE  Reminder Term Edit

Select Reminder Term: VA-HEPATITIS C INFECTION    NATIONAL
        ...OK? Yes//<Enter>   (Yes)

Select FINDING ITEM: VA-HEPATITIS C INFECTION// <Enter>
  FINDING ITEM: VA-HEPATITIS C INFECTION// LOCAL TAXONOMY NAME HERE
EFFECTIVE PERIOD: 1Y
USE INACTIVE PROBLEMS: <Enter>
  WITHIN CATEGORY RANK: <Enter>
  CONDITION: <Enter>
  MH SCALE: <Enter>
Select FINDING ITEM: <Enter>
```

5c. Health Factors or Other Methods of Collecting Risk Assessment Data

Determine what is used locally to represent the reminder terms for risk assessment data. Your team needs to determine what the clinicians use at your site on encounter forms to collect the directives' risk assessment data. Some sites use health factors with different names, some use education topics, and others use exams. If your facility does not have readily extractable data, do not create or devise a means to try to get more data extracted automatically for historical purposes. The Program Office truly needs this collection process to pull legitimate information about assessment of our veteran patients for risk factors for Hepatitis C. Do not use the education topics unless the local/site use of education topics truly meets one of the criteria for ASSESSMENT OF RISK (since education on a topic does not usually mean that someone has been screened for risk factors for the disease).

❑ If the pre-mapped health factor is not used at your site (see Step 3), inactivate the health factor and remove it as a finding for the reminder term definition.

❑ Add the local health factor(s) as a finding(s) for the reminder term.

```
Select Reminder Term Management Option: TE  Reminder Term Edit
Select Reminder Term: HEPATITIS C INFECTION    NATIONAL
        ...OK? Yes//<Enter>   (Yes)
Select FINDING ITEM: VA-HEPATITIS C INFECTION// <Enter>
  FINDING ITEM: VA-HEPATITIS C INFECTION// HF LOCAL HEALTH FACTOR OR
OTHER FINDING ITEM <Enter>
EFFECTIVE PERIOD: <Enter>
USE INACTIVE PROBLEMS: <Enter>
  WITHIN CATEGORY RANK: <Enter>
  CONDITION: <Enter>
  MH SCALE: <Enter>
Select FINDING ITEM: <Enter>
```

6. **Run the Reminder Test option after term definitions are completed to review the results of patient data with each of the findings mapped to the term.**
   Option: Reminders Test on the *Reminder Managers Menu*

7. **Run a Reminders Due Report for a test period of time to determine if the patients who are reported are appropriate.** The report could be run for the national reminder, or create local reminders with one reminder term defined as a patient cohort finding item, then run the report to get findings by individual reminder term.
   Option: Reminders Due on the *Reminder Reports menu*

Examples

```
Reminders due 7/27/2000 - All Locations for 6/1/2000 to 6/30/2000


VA-HEP C RISK ASSESSMENT:  5 patients have reminder due


                                      Date Due    Last Done   Next Appt
                                      --------    ---------   ---------
1    XXXXX, XXXXXXX (XXXXXXXXX)        DUE NOW     N/A         9/22/2000
2    XXXXXXX, XXXXX (XXXXXXXXX)        DUE NOW     N/A         7/27/2000
3    XXXXXX, XXXXX, XXXX (XXXXXXXXX)   DUE NOW     N/A         8/14/2000
4    XXXXXXX, XXXXX X. (XXXXXXXXX)     DUE NOW     N/A         12/21/2000
5    TEST,REGINA**PENDING** (000000001) DUE NOW   N/A         None


Report run on 11674 patients.
Applicable to 5 patients.
```

```
Reminders due 7/27/2000 - All Locations for 6/1/2000 to 6/30/2000


RISK FACTORS FOR HEP C:  7 patients have reminder due


                                      Date Due    Last Done   Next Appt
                                      --------    ---------   ---------
1    XXXXXX, XXXXXX J (XXXXXXXXX)      DUE NOW     N/A         7/27/2000
2    XXXX, XXXXXXXXX A (XXXXXXXXX)     DUE NOW     N/A         12/6/2000
3    XXXXXX, XXXXX A (XXXXXXXXX)       DUE NOW     N/A         8/8/2000
4    XXXX, XXXXXX (XXXXXXXXX)          DUE NOW     N/A         8/14/2000
5    XXXXXXXX, XXXXXX JR (XXXXXXXXX)   DUE NOW     N/A         8/22/2000
6    XXXXXX, XXXXXX E (XXXXXXXXX)      DUE NOW     N/A         8/11/2000
7    TEST,B (000001234)               DUE NOW     N/A         None


Report run on 11674 patients.
Applicable to 7 patients.
```

8. **Send a mail message to the VHA CIO HEP-C Implementation mail group on Exchange, indicating that your setup is complete.**

9. **Review of setup.** The implementation group will review your setup and work out any changes with your local implementation group.

10. Schedule the Lab Search/Extract Manual Run (Enhanced) option [LREPI ENHANCE MANUAL RUN] to extract July 2000 data from production.

This option will build mail messages containing HL7 segments. For each message with HL7 segments, a corresponding Emerging Pathogens Initiative Verification mail message will be created. These messages for this "test run" should only be sent to the local EPI mail group members. Your site's remote members in the EPI mail group should not have a remote member defined yet for the Q-EPI or Q-EPT domain.

Lab Search/Extract Manual Run Example

```
                      Laboratory Search rerun option
Select Protocol: ?
     Answer with LAB SEARCH/EXTRACT PROTOCOL, or NUMBER
   Choose from:
   4024       LREPI                 Emerging Pathogens Initiative (EPI)
   4990       LRNCH                 National Center for Health Promotion


Select Protocol: 4024  LREPI         Emerging Pathogens Initiative (EPI)
         ...OK? Yes// <Enter>  (Yes)
Override Any Inactive indicators: ? NO// <Enter>
Include All Search Parameters? YES//<Enter>
Select Search Date: 07012000
Requested Start Time: NOW// <Enter> (AUG 09, 2000@16:22:35)
```

11. After the test run is completed, review the content of the mail messages created, and review the content of the Reminder Extract Summary file (#810.3) for findings extracted based on the reminder definitions.

New Reminder Reports

Two new reminder report options on the Reminder Reports menu can also be used to verify the accuracy of the findings: Extract EPI Totals and Extract EPI List by Finding and SSN.

Extract EPI Totals [PXRM EXTRACT EPI TOTALS]

This option is used to summarize total counts for each type of finding item that was extracted for the target date range of the LREPI extract option run. The Lab EPI extract name follows the convention: LREPI YY/MM MMDDYY, where the YY/MM is the year and month from the date range entered in the 'Select Search Date' prompt in the LREPI extract option. MMDDYY is the month, day and year that the extract was run. The prefix of LREPI identifies the extract as the result of LREPI extract options (manual or automatic run for the LREPI Lab Search/Extract Protocol). At the NAME prompt, enter "LREPI YY/MM" to identify the extract for the month desired to review.

```
Select Reminder Reports Option:
   D       Reminders Due Report
   T       Extract EPI Totals
   L       Extract EPI List by Finding and SSN
Select Reminder Reports Option: T  Extract EPI Totals
START WITH NAME: FIRST// LREPI 00/05
DEVICE: <Enter>   ANYWHERE    Right Margin: 80// <Enter>
```

```
REMINDER EPI EXTRACT TOTALS                    AUG  1,2000  00:31   PAGE 1
--------------------------------------------------------------------------------
LREPI 00/05 061600          Extract Date Range: MAY  1,2000-MAY  31,2000
                                    Extract Date: JUN 16,2000  01:34


    Total Patients Evaluated:        78
    Total Patients with Findings:    51


    Totals by Finding Item            Finding   Unique Patient
                                       Count        Count
        INTERFERON BETA-1A (AVONEX) 30     3           2
        RIBAVIRIN/INTERFERON 1200/3 PE     5           3
        RIBAVIRIN/INTERFERON 600/3 PEN     1           1
        RIBAVIRIN/INTERFERON 1000/3 PE     2           2
        RIBAVIRIN 200MG CAP (VA 44-4-0     1           1
        INTERFERON ALPHA-2B INJ (VA 44     1           1
        HEP C ANTIBODY                    30          30
        TOT. BILIRUBIN                    21          21
        AST                               33          33
        ALT                               33          33
        VA-HEPATITIS C INFECTION          18          18
```

Extract EPI List by Finding and SSN [PXRM EXTRACT EPI FINDING LIST]

This option lets you print extract results stored in the Reminder Exchange Summary file
(#810.3). Results are listed by finding item and social security number. The finding items are
loaded into the Reminder Exchange Summary file when one of the two Lab Search/Extract
options is run.

```
    D       Reminders Due Report
    T       Extract EPI Totals
    L       Extract EPI List by Finding and SSN

 Select Reminder Reports Option: L  Extract EPI List by Finding and SSN
 DEVICE: <Enter>  ANYWHERE    Right Margin: 80// <Enter>
```

Extract EPI List by Finding and SSN

```
LREPI 00/05 062300            Date Range: MAY  1,2000 TO MAY 31,2000
                              Extract Date: JUL 23,2000  16:12


Total Patients Evaluated:   374
Patients with Findings  :   339


Finding      SSN          Patient              Enctr Type  Date
-------------------------------------------------------------


ALT       145-59-4281    HLUKXRU,LYSEXYN      Outpatient 5/12/00
          155-55-2063    HLNYHT,CLZHT JL      Outpatient 5/24/00
          182-39-1314    HLCIHUL,AHXYLUI      Outpatient 5/15/00
          184-68-9784    TEXZWTXY,AHTADH      Outpatient 5/13/00
          202-17-5419    HLAAHU,JELUAHT       Outpatient 5/22/00
          203-07-7909    LLJHN,HIPLUI         Outpatient 5/11/99
          203-27-2835    KLAHAA,TLZRHA C      Outpatient 5/23/00
          203-59-7487    YXRYF,FHYH L         Outpatient 5/30/00
```

Extract EPI List by Finding and SSN, cont'd

```
        203-69-0200    WHLQHU,JHJDA        Outpatient 4/12/00
        204-37-2492    WHAJE,PLASHU        Outpatient 5/21/00
        204-68-3181    PUXWEHSS,TXA U      Outpatient 5/8/00
        204-68-4002    DDYBHALBHU,TRH      Outpatient 5/4/00
        204-86-6120    DXYLERH,SEXZLT      Outpatient 5/19/00
        206-28-5692    MDAAT,EXKHUS I      Outpatient 5/17/00
        207-38-4989    MJFRDUH,PDAKHU      Outpatient 5/18/00
        207-78-1659    HRIFDYT,FHYHQL      Outpatient 5/15/00
        207-78-4534    MHDHU,CHTTDJL       Outpatient 5/26/00
        207-86-6978    WDAADLZT,PLNYH      Outpatient 5/15/00
        208-96-0273    BRTJEHU,LYFHAL      Outpatient 5/31/00
        210-98-3521    ZDYB,ULNZXYI P      Outpatient 12/29/94
        221-79-8454    PHSUDH,CXTHWE E     Outpatient 5/11/00
        221-79-9178    GLMLPLN,FHXUFH      Outpatient 5/2/00
        222-13-6480    FXTSHU,HIPLUI E     Outpatient 5/1/00
        223-28-5077    LLJBHN,ZLJXY CU     Outpatient 5/26/00
        223-58-7226    RHHI,CLY A          Outpatient 5/5/00
        224-17-5189    KDZZXYT,JELUAHT     Outpatient 2/9/00
        224-17-5706    BRJB,HRFHYH         Outpatient 5/26/00
        224-17-6622    HLPBDYT,HIPLUI      Outpatient 5/1/00
        224-17-6941    CADYH,ZDJELHA A     Outpatient 8/26/97
        224-33-2181    HRZWEUHNT,UXKHU     Outpatient 5/31/00
        224-37-4221    WDAADLZTXY,LAKH     Outpatient 4/7/00
        224-69-3118    WXXIT,PDAADLZ Y     Outpatient 5/2/00


etc.
```

12. When the setup review is completed, set up your EPI mail group (not the EPI-REPORTS mail group) to send monthly automated runs to the REMOTE MEMBER XXX@Q-EPI.MED.VA.GOV. Make sure your mail group for EPI is set up to send to all local staff who will help validate the HL7 messages. This setup is done through VA FileMan in the MAILGROUP file (#3.8).

Example

```
VA FileMan 22.0
Select OPTION: 1  ENTER OR EDIT FILE ENTRIES
INPUT TO WHAT FILE: MAIL GROUP
EDIT WHICH FIELD: ALL// MEMBERS     (multiple)
   EDIT WHICH MEMBERS - REMOTE SUB-FIELD: ALL//
THEN EDIT FIELD: MEMBERS - REMOTE
Select MAIL GROUP NAME: EPI
    1   EPI
    2   EPI-REPORT
CHOOSE 1-2: 1  EPI
Select MEMBER: Add the local staff who will help validate the HL7 messages.
Select REMOTE MEMBER: XXX@Q-EPI.VA.GOV
  Are you adding 'XXX@Q-EPI.VA.GOV' as a new REMOTE MEMBER (the
2ND for this MAIL GROUP)? No// Y   (Yes)
Select REMOTE MEMBER: <Enter>
Select MAIL GROUP NAME: <Enter>
```

13. Run the Lab Search/Extract Manual Run (Enhanced) option [LREPI ENHANCE MANUAL RUN] again for the month of July, 2000. The messages from this job should be sent automatically to XXX@Q-EPI.MED.VA.GOV which returns Confirmation messages when it receives the data.**.**
Avoid transmitting on heavy transmittal days, such as the Wednesday prior to payroll processing and CCPC (Consolidated Co-payment Processing Center).

14. Seeding the EPI Database—after September 18
After September 18, begin to seed historical data starting with the month of October 1998. Schedule transmissions chronologically with no two jobs running at the same time. **Please be sure each month's data extract completes before starting the next month.**   Each month will build on the previous month (in the order of 10/98, 11/98, 12/98…8/00). **You need to adhere to this sequence; otherwise, your data will be rejected.**

The task may take from 1 to 5 hours to run (depending on system and network activity).

Determine the length of time a job requires at your site, based on Verification Reports or Taskman job; then set up a queuing schedule so that jobs will run automatically, allowing an hour between runs. The goal is to have all historical seeding completed by October 15. Sites must determine how many they can run per day to achieve this goal.

15. Monthly Follow-up on EPI Runs

- Receive HL7 messages and Verification Report messages on the 15th for the previous month's data (you will start receiving many more messages than in the past).
- Receive Confirmation messages from AAC.
- Receive Processing messages from AAC, which include Errors and Warnings.
- Follow up on Errors in Error Processing messages.
- Use Reminder Extract Summary entries and Verification Report messages as needed.
- Use the LREPI enhanced manual run to rerun a month after errors are corrected.

EPI Data Transmission

Emerging Pathogens (as defined by VAHQ) act as triggers for data acquisition for the Laboratory Search/Extract software. The software then retrieves relevant, predetermined, and patient-specific data for transmission to the AAC database repository. Once at that location, the data are analyzed using statistical software based on Statistical Analysis System (SAS). VAHQ Reports may then be generated for appropriate use and distribution at the national level.

With the installation of the LR*5.2*260 patch, automated data transmissions will occur. Receipt of this transmission at the AAC queue will trigger a confirmation message back to the originating site to "confirm" that data has been sent. At the AAC's next processing cycle (25th of the month), a processing/error report will also be generated and sent back to the originating site. This processing/error report will serve as the ultimate "confirmation" that data has been accepted. If there is a fatal error in any segment of the message, the entire message will be rejected and must be resent manually. Warning codes/errors are accepted into the data set, but serve to remind the originating site that a correction of the process generating the error may be needed.

> **NOTE:** The daily NCH data transmissions are no longer necessary and the NCHP program office has requested that we terminate the transmissions. This will be done during the post-init phase and does not require any user intervention.

Monitoring EPI Messages

Each site currently has an individual, usually a Lab Information Manager, who monitors the EPI messages sent to and received from the AAC. This monitoring should continue, but a reminder manager or Hepatitis C Coordinator should be added to the mail group performing the monitoring, to address issues related to reminder data. The EPI messages that previously required review prior to manually sending the messages to Austin will now be sent automatically at the time the message is created. When the AAC processes the messages, an error-processing message will be returned to individuals monitoring the messages. New error codes have been defined related to the reminder data transmitted in the messages.

The data extracted from reminder processing is used to create the following segments: PID, PV1, DSP, and ZXE. The errors that the Reminder Manager will monitor are for these segments

SEGMENT	FIELD SEQUENCE NUMBER	Data Type/ Length	FIELD ELEMENT NAME	USER/ HL7 DEFINED
PID	1	4/SI	Set ID – Patient ID	HL7
	2	16/CK	Patient ID (External ID)	HL7
	3	20/CM	Patient ID (Internal ID)	HL7
	5	48/PN	Patient Name	HL7
	7	19/TS	Date of Birth	HL7
	8	1/ID	Sex	HL7 (Table 0001)
	10	1/ID	Race	HL7 (Table VA07)
	11	106/AD	Address (Homeless {where applicable}~Zip Code)	HL7
	19	16/ST	SSN	HL7
	27	60/CE	Veteran's Military Status	HL7 (Table VA011)
PV1	1	4/SI	Set ID - Patient Visit	HL7
	2	1/ID	Patient Class (I=Inpatient,O=Outpatient)	HL7
	36	3/ID	Discharge Disposition (Type of Disposition {Code}~Type of Disposition {Text}~Source ID {VA45=VA File 45})	HL7
	44	19/TS	Admit Date/Time (Event Date/ Time)	HL7
	45	19/TS	Discharge Date/Time	HL7
DSP	1	2/ID	Set ID	HL7
	3	80/FT	Date~Text Term~Resolved Term~Result~Sourceid	USER
	5	2/ID	Result ID (linking DSP and ZXE)	HL7
ZXE	1	20/FT	NDC	USER
	2	75/FT	Drug Name~Coding System	USER
	3	4/NM	Days Supply	USER
	4	19/TS	Release Date/Time	USER
	5	19/TS	Fill Date/Time	USER
	6	19/TS	Stop Date/Time	USER
	7	2/ID	Result ID (linking DSP and ZXE)	USER

Emerging Pathogens Verification Report Message

Once the Lab Search/Extract Parameters are set up, the Laboratory Search/Extract software will automatically generate an Emerging Pathogens Verification Report message the 15th of each month for each message sent to the AAC with HL7 segments. The Emerging Pathogen Verification Report should be used to compare the EPI data capture to site-specific data capture. This comparison also helps determine if the Lab Search/Extract Parameter for the EPI criteria is accurately defined.

- NOTE: The EPI and EPI-REPORT mail group members should expect substantial increases in the volume of HL7 messages, confirmation reports, and processing/error messages.
- The verification report may not be helpful in its current format. A new report format will be designed and distributed at a future date.

Example:

```
Emerging Pathogens Verification Report  [#60004] Page 1
----------------------------------------------------------------------------

REPORTING DATE FROM  12-01-1996  TO  12-31-1996    Message Seq # 1  Auto


JOHN DOEDOE XXX-XX-XXXX 07-07-1913   M   WORLD WAR II     45205
Outpatient  Accession Date  12-11-1996@1025

*********2  HEPATITIS C ANTIBODY POS  *********

12-20-1996@1309  RIA 1220 68  CHEMISTRY TEST  SERUM
    Hepatitis C Ab  01-03-1997@1347   STRONG POSITIVE    -
```

AAC Table of Reject and Warning Codes for EPI Data Transmissions

See the Laboratory documentation or the Troubleshooting section that follows for the full list of errors.

The most common errors that prevent the message from being processed at the AAC are related to the PID segment data identifying patient demographic information.

Example (for PID and PV1)

ERROR NUMBER	FIELD NAME	EDIT DESCRIPTION	ERROR MESSAGE
PID Segment			
200	Patient Name	Required. Must be alphanumeric. Must not be all numeric. Must not be all blank	Patient Name is missing, or not alphanumeric, or all numeric, or all blanks.
205	Patient Date of Birth	Not required. Must be less than the processing year.	Date of Birth is after the Date of transmission. (Also see W03, W04, and W05)
210	Patient Sex	Not required. Must be blank or match table. (Refer to table 0001)	Sex code is not blank or a valid code. (Refer to table 0001)
215	Patient Race	Not required. Must be blank or a valid code. (Refer to table VA07)	Race code is not blank or a valid code. (Refer to table VA07)
220	Patient Address	Must be blank or 'H'.	Patient Address is not blank or 'H
224	Patient Zip Code	Not required. Must be Blank or numeric. If numeric, first five digits must not be all zeros. If last four digits exist, then must be numeric.	Address Zip Code is missing or numeric.
235	Social Security Number	Required. Last byte must be 'P' or blank	Pseudo SSN is not 'P' or blank.
236	Social Security Number	Required. Must be numeric. Must be greater than zeros.	Social Security Number is missing, or not numeric, or is equal to zeros.
240	Patient Veteran Status	Must be a valid code. (Refer to table VA11)	Period of Service was invalid. (Refer to table VA11).
PV1 Segment			
400	Patient Class	Required. Must be 'I', 'O', or 'U'.	Patient Class is not 'I', 'O', or 'U'.
410	Discharge Date	Not required. Must be blank or a valid date. Must be less than or equal to processing date.	Discharge Date is invalid or after date of transmission.
411	Discharge Time	Not required. Time must be blank or a valid time.	Discharge Time is invalid
420	Admit Date/Time	Required. Must be numeric. Must be a valid date. Must be less than or equal to processing date.	Admit Date is invalid or after date of transmission.
421	Admit Date/Time	Required. Time must be numeric. Must be a valid time.	Admit Time is invalid.

Troubleshooting & Q & A

Q: I have mapped my findings to the reminder terms, but cannot get the reminder to work. It will only resolve the reminder if you choose screening done previously. It does not recognize my previously done lab tests at all. Can someone please help me see where I have gone wrong?

A: 1. Tests were included as findings in the reminder that were already mapped to a term and also included in the reminder. Delete the test findings.

2. Health factors were included as findings that are already mapped to a term and included in the reminder as terms. Delete the health factor entries.

Q: I only set up findings/conditions for the HAV IgG and HAV IgM. It does not appear that we have a lab test that corresponds to "Hepatitis A virus antibody total positive." I am not clear how to map this.

A: I asked about the Reminder Terms on tests we didn't do here (such as HAV total) and was told to map only those that were done here. So for HAV, I only mapped the IgM test since that is the only one we do. If there are lab tests or drugs that your site doesn't use, you don't need to map those terms.

Q: Our lab tests are done by a reference lab and they use a # sign in the results area for some tests such as HEP Be; when we click on this, it takes us to the results values, which may be free test. How can we map these particular tests.

A: Right now, there is no way to map to these; some tests will just be missed, so leave these tests blank when you're mapping. In the future, you may want to design another system for designating results for these tests, if you want to capture this data for national roll-up.

Q: How do we map lab tests if the results are a number?
A: Under Indicator, put ># or <# as the value.

Q: Our lab uses codes for results (print codes); can these be used in mapping?
A: The Lab Search/Extract parameters can use these, but for mapping Clinical Reminder Terms, you need to use the actual value – a word.

Q: If we already mapped terms when we implemented Clinical Reminders 1.5, do we need to re-map these?

Q: As long as you mapped them to national terms, there is not need to re-map.

Q: After we were all set up, we got messages indicating that an automated run had occurred, which we didn't expect.
A: This probably happened because your Lag Days were set to 0. You need to set these to 15 for all Hepatitis entries; just delete the false messages.

Q: We checked the Lag days for all the Hep C items in the Lab/search extract file and they were all set at 15 days already. Today we checked NCH PAP and cholesterol and they are set at 10. Should those be changed also?

A: The NCH PAP and Cholesterol will be discontinued with the installation of this patch. There's no need to change them.

Q: After listening to the call on 7/24, I would like a clarification on one point. It has always been the "unwritten rule" in the past when setting up reminders that have the "VA-" prefix, to 'copy' the reminder to a local reminder with the purpose of maintaining the original form of the "VA-" reminder. I was left with the impression following the call that we should utilize the "VA-HEP C RISK ASSESSMENT" reminder as the working reminder for the national database seeding and subsequent transmissions to Austin.

Are we to map the local findings to this "VA-HEP C RISK ASSESSMENT" reminder? Or, are we to 'copy' the "VA-" reminder to a local reminder and map the local terms to the local reminder?

A: VA-HEP C RISK ASSESSMENT is the reminder that will be used to determine the "upload" of the HEP C data to the EPI. You need to map your local drug, lab, and other findings to *national terms* for the necessary data to be extracted for the national roll-up. However, you can use your local reminder for clinical use, to enter Hepatitis C data, resolve the reminder, etc. You can also copy the national reminder to a local reminder if you want to have more specific or different data as criteria for checking on HEP C.

Q: How long does it take to set up and install this Hepatitis Extract integrated build?

A: The actual installation time is only three or four minutes. Doing the setup – mapping terms and completing the Lab Search/Extract entries can take longer—probably several hours. Most of the time will be in conferring with pharmacy and lab experts at your site to make sure you use the correct drugs and lab tests to map to the national terms. After you map the terms and install the package in a test account, you should run reports described in this manual to ensure that the data is valid and accurate. After you install in production and transmit data to Austin, you will need to review the verification reports for accuracy. So the initial setup and testing can add up to several hours for several people.

Q: We have a question about mapping the liver function tests. The documentation doesn't specify any conditions. The logic appears to indicate that any patient with an SGOT, SGPT, or bilirubin test will be captured in the file. Those tests are widely ordered in our facility, so we entered a condition of I V>n where n is the upper limit of the normal range for the test.

A: SGOT, SGPT, and Bilirubin tests do not need any conditions for the laboratory tests added to the Reminder Term file. Not all SGOT, SGPT and Bilirubin tests are sent to the EPI database. Which ones are sent is based on the reminder definition. The only tests sent are the most recent SGOT, SGPT, and Bilirubin on file when a HEPATITIS A, B, or C positive test, or a HEPATITIS C negative test is found within the reporting date range. This is controlled

by the VA-NATIONAL EPI LAB EXTRACT reminder definition. All of the lab tests are in the patient cohort except the SGOT, SGPT, and Bilirubin, which are information findings. The Lab Search/Extract file does not include the Bilirubin, SGOT, and SGPT tests, so the only way they are included now is based on the Reminder definition.

Q: I realize there is a mandate that we load this software into production and that it was optimized to enhance system performance, but we would like to know from other sites how it has affected their system.

A: (*from a site*) We started using reminders about 18 months ago. There is a definite load associated with reminders. We use the CPRS GIU almost exclusively and each time a patient is selected (at least with the older version) the equivalent of a search of the database kicks off for each reminder. We run more than 30 reminders and have upgraded our hardware (installed a 4100 with dual processors).

A: (*from an NVS specialist*) Check the ORQQPX Search Items (Clinical Reminders for Search) on the General Parameter Tools option, EP Edit Parameter Value for Package. If there are VA-entries there, they can be deleted. The code looks up from User, Location, Services, Division, System, to PACKAGE. If you have no entries (reminders) for User and up, it will still perform the lookup on the Package level. These VA- reminders do not need to be there (FOR PACKAGE) unless the site specifically wants them or defines its own reminders.

Q: On the EPI PROCESSING REPORTs I got back from Austin, I'm getting tons of the error codes W23 and W19. What do these mean?

A: See the chart that follows. These particular errors are not critical, and will not prevent your data from being accepted.

AAC Table of Reject and Warning Codes for EPI Data Transmissions

ERROR NUMBER	FIELD NAME	EDIT DESCRIPTION	ERROR MESSAGE
000 Series			
Miscellaneous			
001	Message Control ID	Must not be blank	Message control ID was blank.
002	Batch Sending Facility	Sending Station not valid. (Refer to table AA001)	Invalid Batch Sending Facility.
003	Segment Name	PID Segment missing. Do not edit for the existence of PID when NTE segments are present.	PID Segment missing.
004	Segment Name	PV1 Segment missing. Do not edit for the existence of PV1 when NTE segments are present.	PV1 Segment missing.
005	Segment Name	Invalid Segment name.	Invalid HL7 Segment name.
006	Message Creation Date	Must be a valid date.	Message Creation Date is invalid.
007	Message Creation Time	Must be a valid time.	Message Creation Time is invalid.

ERROR NUMBER	FIELD NAME	EDIT DESCRIPTION	ERROR MESSAGE
008	Processing Period	Must be a valid date.	Processing Period in the NTE segment is invalid.
009	Processing Period	Historical processing for V2 of EPI (commonly known as HEPC) must be received in Austin sequentially from October 1998 forward.	For V2 only – Processing into AAC must be sequential from 10/98 forward.
100 Series			
NTE Totals Segment			
100	Action Ind	Currently not being used.	Currently not being used.
105	Totals Total Count	Must be numeric, if Action Ind is 'T'.	NTE Totals Total count was not numeric.
110	Negative Input Ind	Must be 'N', if Action Ind is not 'T'.	Negative Input Ind was not 'N'.
200 Series			
PID Segment			
200	Patient Name	Required. Must be alphanumeric. Must not be all numeric. Must not be all blanks.	Patient Name is missing, or not alphanumeric, or all numeric, or all blanks.
205	Patient Date of Birth	Not required. Must be less than the processing year.	Date of Birth is after the date of transmission. (see also W03, W04, and W05)
210	Patient Sex	Not required. Must be blank or match table. (refer to table T0001)	Sex code is missing or an invalid code (Refer to table 0001).
215	Patient Race	Not Required. Must be blank or a valid code. (Refer to table VA07)	Race code is not blank or a valid code. (Refer to table VA07).
220	Patient Address	Must be blank or 'H'.	Patient Address is not blank or 'H'.
224	Patient Zip Code	Not required. Must be blank or numeric. If numeric, first five digits must not be all zeros. If last four digits exist, then must be numeric.	Address - Zip Code is missing or not numeric.
235	Social Security Number	Required. Last byte must be 'P' or blank.	Pseudo SSN is not 'P' or blank.
236	Social Security Number	Required. Must be numeric. Must be greater than zeros.	Social Security Number is missing, or not numeric, or is equal to zeros.
240	Patient Veteran Status	Must be a valid code. (Refer to table VA11)	Period of Service was invalid. (Refer to table VA11).
300 Series			
OBR Segment			
300	Universal Service ID	Must be a valid code. (Refer to table NLT)	Invalid Universal Service ID (Refer to table NLT).
305	Observation Date	Must be numeric date. Must be a valid date. Must be less than processing date.	Observation Date is invalid date or after the date of transmission.
307	Observation Time	Not required. Must be blank or numeric. If numeric, must be a valid time.	Observation Time is invalid.

ERROR NUMBER	FIELD NAME	EDIT DESCRIPTION	ERROR MESSAGE
310	Specimen Source Code	Not required. If not blank, must be a valid code. (Refer to table SPC)	Invalid Specimen Source Code (Refer to table SPC). (see also W07)
315	Parent Observation ID	Not required. Must be blank or a valid code. (Refer to table NLT)	Invalid Parent Observation ID (Refer to table NLT).
400 Series			
PV1 Segment			
400	Patient Class	Required. Must be 'I', 'O', or 'U'.	Patient Class is not 'I' . 'O', or 'U'.
410	Discharge Date	Not required. Must be blank or a valid date. Must be less than or equal to processing date.	Discharge Date is invalid or after date of transmission.
411	Discharge Time	Not required. Time must be blank or a valid time.	Discharge Time is invalid.
420	Admit Date/Time	Required. Must be numeric. Must be a valid date. Must be less than or equal to processing date.	Admit Date is invalid or after date of transmission.
421	Admit Date/Time	Required. Time must be numeric. Must be a valid time.	Admit Time is invalid.
500 Series			
DG1 Segment			
500	Diagnosis Code	Required. Must be a valid code. (Refer to table AA010)	Invalid Diagnosis Code (Refer to table 0051).
600 Series			
OBX Segment			
600	Observation ID	If not blank, must be a valid code. (Refer to table NLT)	Invalid Observation Nat Lab Num (Refer to table NLT). (see also W09)
605	Final Result Date	Must be blank or a valid date. Must be numeric. Must be less than or equal to processing date.	Final Result Date is invalid or after the date of transmission.
W00 Series			
Warnings			
W03	Patient Date of Birth	Must not be all spaces.	Patient Date of Birth is all spaces. (see also 205)
W04	Patient Date of Birth	Year must not be all zeros.	Patient Date of Birth Year is all zeros. (see also 205)
W05	Patient Date of Birth	Must be a valid date.	Patient Date of Birth is not in a valid date format. (see also 205)
W07	Specimen Source Code	Blanks in code.	Specimen Source Code is blank. (see also 310)
W09	Observation Nat Lab Num	Blanks in code.	Observation Nat Lab Num is blank. (see also 600)
W10	Date of Prescription	Must not be all spaces.	Date of Prescription is all spaces.
W11	Date of Prescription	Year must not be all zeros.	Date of Prescription is all zeros.

ERROR NUMBER	FIELD NAME	EDIT DESCRIPTION	ERROR MESSAGE
W12	Date of Prescription	Must be a valid date.	Date of Prescription is not in a valid date format.
W14	Resolve Term	Must be numeric.	Resolve Term is not numeric
W15	Days Supply	Must be numeric or blank.	Days Supply not numeric or blank
W16	Release Date	Must be numeric date. Must be a valid date. Must be less than processing date.	Release Date is invalid date or after the date of transmission.
W17	Fill Date	Must be numeric date. Must be a valid date. Must be less than processing date.	Fill Date is invalid date or after the date of transmission.
W18	Stop Date	Must be numeric date. Must be a valid date. Must be less than processing date.	Stop Date is invalid date or after the date of transmission.
W19	Primary Indicator	One DG1 diagnostic code must be designated as the primary code - valid starting with version 2 of the software.	No diagnostic code designated as primary
W20	Release Date/Fill Date	At least one of the two - release date or fill date - must be present.	Release Date and Fill Date are both blank.
W21	DSP Nomenclature	Must not be all spaces.	DSP Nomenclature is all spaces.
W22	Resolve Term	Must be 1, 2, 3, 4, 5, 6, 7, or 0.	Invalid Resolve Term.
W23	Lab Result	Must be spaces if Resolve Term is 1, 2, 3, 4, or 7.	Lab Result is not insync with Resolve Term.

Other Troubleshooting Tips and Tricks, Do's and Don'ts

The following list includes items noted throughout the *Hepatitis C Extract Installation and Setup Guide*. Many of the items can cause errors in transmittal or data validity if not done correctly.

- The EPI and EPI-REPORT mail group members should expect substantial increases in the volume of HL7 messages, confirmation reports, and processing/error messages. The verification report may not be helpful in its current format. A new report format will be designed and distributed at a future date.

- The daily NCH data transmissions are no longer necessary and the NCHP program office has requested that we terminate the transmissions. This will be done during the post-init phase and doesn't require any user intervention. Please notify the person responsible for managing NCH data transmissions.

- The LAG DAYS field in the Lab Search/Extract Parameter Setup [LREPI PARAMETER SETUP] option *must* be set to 15 days so that the monthly EPI extract will be sent on the 15th of each month for the previous month.

- The COUNTRY CODE field for the EPI-LAB entry in the HL7 APPLICATION PARAMETER file should be USA (United States of America), not US (United States of America) or the transmissions will be rejected.

- For the VA-NATIONAL EPI LAB EXTRACT reminder, the BILIRUBIN, TRANSFERASE (AST) (SGOT), and ALANINE AMINO (ALT) (SGPT) reminder terms do not have related entries in the LAB SEARCH/EXTRACT file. These three tests are extracted by the VA-NATIONAL EPI LAB EXRACT reminder when one of the other Laboratory tests related to this reminders' terms are found for a patient. SGOT, SGPT, and Bilirubin tests do not need any conditions for the laboratory tests added to the Reminder Term file. The other laboratory tests are used in the reminder evaluation processing, as well as in Lab Search/Extract processing.

- Any change in the parameters of the four (4) hepatitis entries on the EPI lab search/extract side must have a corresponding change on the Clinical Reminders side (and vice versa). Currently, the other (i.e. non-hepatitis) EPI lab search/extract data do not have a corresponding parallel system in Clinical Reminders.

- If your site doesn't use lab tests or drugs listed in the Reminder Term list, you don't need to map those terms.

- If a lab test needs to be entered more than once in the parameter setup for a particular lab search/extract pathogen name (e.g. because there is more than one test value that meets the definition), the second and subsequent tests must be placed in quotes. The " " marks don't appear in the final product.

- *Viral load tests* are not in the definitions that the Infectious Diseases Program Office has set for this project. The definitions that have been set forth for the seven health factors to resolve the hepatitis C Risk assessment national reminder, or the three added pathogens to the EPI (Hepatitis A Antibody Positive, Hepatitis B positive, Hepatitis C antibody negative) cannot be changed or it will affect how we can analyze the data for statistical purposes; the definitions must stand as they are.

- For the HEP C VIRUS ANTIBODY NEGATIVE term, all the results of Hepatitis C antibody testing that are not considered "positive" should be reported in this area. Therefore, all of the Hepatitis C results that your facility reports should be mapped to either the positive or the negative term for this test. Not positive terms may include "negative," "indeterminant," "indeterminate," "undetectable." Be sure that phrases that truly differentiate results are used (e.g. the results of "present" and "not present" are not truly differentiated by computer retrieval as both contain the word "present").

- There are PCR based tests used for Hepatitis C. These tests are not used at all facilities and are not yet FDA-approved for identification of hepatitis C disease. As such, they should not be used. Viral Load has also not been approved by the FDA.

- A HEPATITIS C INFECTION taxonomy is released with the VA-HEP C RISK ASSESSMENT reminder. Review the content of the VA-HEPATITIS C INFECTION taxonomy. These are the diagnoses that will be looked for. *There is no need to add additional taxonomies as findings.*

- If the pre-mapped health factor is not used at your site, inactivate the health factor and remove it as a finding for the reminder term definition. Add the local health factor(s) as a finding(s) for the reminder term.

- Since the Reminder Term List option doesn't show the condition field with the finding item, you can run a VA VA FileMan Print from the Reminder Term file that just sorts by name, and then prints name, finding, and condition. This is a useful list, especially when needing to map so many lab tests and you're not sure what values have been defined.

- A friendly reminder from the Program Office: If your facility does not have readily extractable data, do not create or devise a means to try to get more data extracted automatically for historical purposes. The Program Office truly needs this collection process to pull legitimate information about assessment of our veteran patients for risk factors for Hepatitis C. Do not use the Education Topics unless the local/site use of education topics truly meets one of the criteria for ASSESSMENT OF RISK (since education on a topic does not usually mean that someone has been screened for risk factors for the disease).

Hint from a site: The mapping went ok, but when we went into VA FileMan to do an inquiry on the file Reminder Extract Summary (file ^DIC(810.3), we got a mumps error code and it was a protection violation. Our programmer was able to correct this by giving privileges to the global PXRMXT. Now we do not get the error code. Just thought you might want to have a heads up on this problem.

Appendices

- **Appendix A**: Examples from Test Sites

    - Mapping Terms – Helpful Hints – Example 1
    - Mapping Pharmacy Terms – Example 2
    - VA FileMan Print of Terms and Conditions
    - Updating and Defining a Dialog for Risk Assessment Reminder – Example 1
    - Updating and Defining a Dialog for Risk Assessment Reminder – Example 2

- **Appendix B**: Directive **IL 10-98-013,** Under Secretary For Health's Information Letter, Hepatitis C: Standards For Provider Evaluation And Testing
- **Appendix C**: VHA DIRECTIVE 2000-019, Installation of Clinical Reminders 1.5 Software
- **Appendix D:** Checklist (Abbreviated) Steps

Appendix A: Examples from Test Sites

> **NOTE:** In many of these examples, the term PREV POSITIVE TEST FOR HEP C is listed, because the name hadn't been changed yet to PREVIOUSLY ASSESSED HEP C RISK

Mapping Terms: Helpful Hints

Example #1

Thanks to Tamara Diltz, Cincinnati VAMC, Alpha test site

To help with mapping the reminder terms and the Lab/Search Extract files, I recommend doing a VA FileMan report.

1. To find out exactly how the lab enters the results for the hepatitis tests, use the report below.

    The Data Type field tells you whether they use a set of codes or free text. The Input Transform field tells you what the set of codes is or how many characters of free they are allowed.

```
Select VA  FileMan Option:  Print File Entries
OUTPUT FROM WHAT FILE: LABORATORY TEST
SORT BY: NAME// NAME;S1
START WITH NAME: FIRST// HEP
GO TO NAME: LAST// HEPZZZZ
  WITHIN NAME, SORT BY:
FIRST PRINT FIELD: NAME
THEN PRINT FIELD: DATA TYPE
THEN PRINT FIELD: INPUT TRANSFORM
THEN PRINT FIELD:<Enter>
Heading (S/C): LABORATORY TEST LIST  Replace
START AT PAGE: 1//<Enter>
DEVICE: (name of printer) <Enter>
```

```
LABORATORY TEST LIST                        JUL 21,2000  11:03    PAGE 1
NAME                                    DATA TYPE
  INPUT TRANSFORM
--------------------------------------------------------------------------
HEP A ANTIBODY(IgM)                     SET
  NEGATIVE:NEGATIVE;POSITIVE:POSITIVE;SEE COMMENT:SEE COMMENT;

HEP A ANTIBODY-TOTAL                    SET
  Nonreactive:N;Reactive:R;Comment:COMMENT;

HEP B CORE AB(IgM)                      SET
  NEGATIVE:NEGATIVE;POSITIVE:POSITIVE;SEE COMMENT:SEE COMMENT;

HEP B CORE AB-TOTAL                     FREE TEXT
  K:$L(X)>7!($L(X)<1) X

HEP B SURFACE AB                        SET
  LOW TITER POSITIVE:LOW TITER POSITIVE;ADEQUATE TITER POSITIVE:ADEQUATE TITE
```

LABORATORY TEST LIST, cont'd

```
HEP B SURFACE Ag                          SET
  NEGATIVE:NEGATIVE;POSITIVE:POSITIVE;SEE COMMENT:SEE COMMENT;

HEP Be ANTIBODY                           SET
  NEGATIVE:NEGATIVE;POSITIVE:POSITIVE;WEAK POSITIVE:WEAK POSITIVE;

HEP Be ANTIGEN                            SET
  NEGATIVE:NEGATIVE;POSITIVE:POSITIVE;WEAK POSITIVE:WEAK POSITIVE;


HEP C ANTIBODY                            SET
  LOW POSITIVE:LOW POSITIVE;MODERATE POSITIVE:MODERATE POSITIVE;STRONG POSITI

HEP. INDUCED PLT AGG                      FREE TEXT
  K:$L(X)>50!($L(X)<1) X

HEPATITIS A AB(IGG)D/C(2/99)              FREE TEXT
  K:$L(X)>7!($L(X)<1) X

HEPATITIS B VIRAL DNA                     FREE TEXT
  K:$L(X)>10!($L(X)<3) X
```

Mapping the required Lab Test for the Hepatitis C or the new EPI Extract reminder can be difficult. In fact, some of the test results that need to be mapped may be free-text fields and some may be sets of codes, so you have to account for the results being entered in many different ways. Some results are in mixed case (first letter upper and the rest lower) and some are in upper-case only. We first thought we could use the expression if V(variable) contains "n" for the negative and nonreactive results, but were surprised to find out that the Lab also puts in a result called "strong positive" which also contains an "n". So we switched to using something like: If V contains "Non" or "Neg".

To try and take into account all the possible ways results could be entered, you can have a Boolean string with "OR" statements for your reminder term condition. You could use "IF" statements that "CONTAIN" "OR" "NOT CONTAIN". In fact, in some instances, it might be easier to say what it does Not Contain, since hopefully a positive test will never contain the words "Neg" or "Non".

An example for positive tests using Not Contain:

Condition: I (V'["Non")!(V'["NON")!(V'["Neg")!(V'["NEG")

Medications

2. To find out how the medications are set up at your facility, do a VA VA FileMan Print for the National Drug File field and the Pharmacy Orderable Item. I mapped mine to the drug name for each one we had in our file.

```
Select VA FileMan Option:  Print File Entries
OUTPUT FROM WHAT FILE: DRUG// <Enter>
SORT BY: GENERIC NAME// GENERIC NAME;S1
START WITH GENERIC NAME: FIRST// INTERFERON
GO TO GENERIC NAME: LAST// INTERFERONZZZ
  WITHIN GENERIC NAME, SORT BY:
FIRST PRINT FIELD: GENERIC NAME
THEN PRINT FIELD: NATIONAL DRUG FILE ENTRY
THEN PRINT FIELD: PHARMACY ORDERABLE ITEM
THEN PRINT FIELD: <Enter>
Heading (S/C): DRUG LIST// <Enter>
START AT PAGE: 1// <Enter>
DEVICE:  (name of printer)
```

```
DRUG LIST                              JUL 21,2000  12:33    PAGE 1
GENERIC NAME
  NATIONAL DRUG FILE ENTRY
  PHARMACY ORDERABLE ITEM
--------------------------------------------------------------------------------
INTERFERON 18 MU VIAL INVESTIG
  INTERFERON ALFA-2A
  INTERFERON ALFA-2A

INTERFERON ALFA-2A 18MU/3ML
  INTERFERON ALFA-2A
  INTERFERON ALFA-2A

INTERFERON ALFA-2A 3MU/ML VIAL
  INTERFERON ALFA-2A
  INTERFERON ALFA-2A

INTERFERON ALFACON-1 15MCG/0.5
  INTERFERON ALFACON-1
  INTERFERON ALFACON-1

INTERFERON ALPHA-2B 10MU/VIAL
  INTERFERON ALFA-2B
  INTERFERON ALFA-2B

INTERFERON ALPHA-2B 3MU/DOSE 6
  INTERFERON ALFA-2B
  INTERFERON ALFA-2B

INTERFERON ALPHA-2B 50MU/ML 1M
  INTERFERON ALFA-2B
  INTERFERON ALFA-2B

INTERFERON ALPHA-2B 5MU/0.2ML
  INTERFERON ALFA-2B
  INTERFERON ALFA-2B

INTERFERON ALPHA-2B 5MU/VIAL
  INTERFERON ALFA-2B
  INTERFERON ALFA-2B
```

DRUG LIST, cont'd

```
INTERFERON ALPHA-2B HSA FREE 3
  INTERFERON ALFA-2B
  INTERFERON ALFA-2B


INTERFERON ALPHA-2B INJ (VA 44
  HEPATITIS C STUDY DRUG


INTERFERON BETA-1A (AVONEX) 30
  INTERFERON BETA-1A
  INTERFERON BETA


INTERFERON BETA-1B 0.3MG (BETA
  INTERFERON BETA-1B
  INTERFERON BETA
```

```
Select VA FileMan Option:  Print File Entries

OUTPUT FROM WHAT FILE: DRUG// <Enter>
SORT BY: GENERIC NAME// GENERIC NAME;S1
START WITH GENERIC NAME: FIRST// RIBAVIRIN
GO TO GENERIC NAME: LAST// RIBAVIRINZZZZ
  WITHIN GENERIC NAME, SORT BY:
FIRST PRINT FIELD: GENERIC NAME
THEN PRINT FIELD: NATIONAL DRUG FILE ENTRY
THEN PRINT FIELD: PHARMACY ORDERABLE ITEM
THEN PRINT FIELD: <Enter>
Heading (S/C): DRUG LIST// <Enter>
START AT PAGE: 1// <Enter>
DEVICE:  (name of printer)
```

```
DRUG LIST                           JUL 21,2000  12:37    PAGE 1
GENERIC NAME
  NATIONAL DRUG FILE ENTRY
  PHARMACY ORDERABLE ITEM
--------------------------------------------------------------------------------


RIBAVIRIN 200MG CAP (VA 44-4-0
  HEPATITIS C STUDY DRUG


RIBAVIRIN/INTERFERON 1000/3 PE
  INTERFERON ALFA-2B/RIBAVIRIN
  INTERFERON ALFA-2B/RIBAVIRIN


RIBAVIRIN/INTERFERON 1200/3 PE
  INTERFERON ALFA-2B/RIBAVIRIN
  INTERFERON ALFA-2B/RIBAVIRIN


RIBAVIRIN/INTERFERON 600/3 PEN
  INTERFERON ALFA-2B/RIBAVIRIN
  INTERFERON ALFA-2B/RIBAVIRIN
```

Example #2: Mapping Pharmacy Items

Thanks to Shanaz Raza, Long Beach VAMC

Step 1: Identify entries not mapped to the National Drug File Entry, as follows:

1. Obtain a list of entries from file #50 for **'Interferon.'** Print only Generic name and National
    Drug File entry.

2. From the list, mark entries not mapped to the National Drug File.

```
Select OPTION: PRINT FILE ENTRIES

OUTPUT FROM WHAT FILE: DRUG//<Enter>
SORT BY: GENERIC NAME//<Enter>
START WITH GENERIC NAME: FIRST// INT
GO TO GENERIC NAME: LAST// INZ
  WITHIN GENERIC NAME, SORT BY: <Enter>
FIRST PRINT FIELD: .01;L35  GENERIC NAME
THEN PRINT FIELD: 20;L25  NATIONAL DRUG FILE ENTRY
THEN PRINT FIELD: <Enter>
Heading (S/C): DRUG LIST//<Enter>
STORE PRINT LOGIC IN TEMPLATE: <Enter>
START AT PAGE: 1//<Enter>
DEVICE:   TELNET TO ALPHAS
```

```
DRUG LIST                                    AUG  3,2000  13:21    PAGE 1
GENERIC NAME                                 NATIONAL DRUG FILE ENTRY
-------------------------------------------------------------------------------

INTERFERON ALFA-2B 10 MILL UNITS VI     INTERFERON ALFA-2B
INTERFERON ALFA-2B 18 MILL UNIT PEN  ←──────────────   This entry is not
INTERFERON ALFA-2B 3 MIL UNITS/VIAL     INTERFERON ALFA-2B   matched
INTERFERON ALFA-2B 3 MILL UNIT PEN      INTERFERON ALFA-2B
INTERFERON ALFA-2B 5 MILL UNIT/0.5M     INTERFERON ALFA-2B
INTERFERON ALFA-2B 50 MILL UNITS VI     INTERFERON ALFA-2B
INTERFERON ALFACON-1 15MCG/0.5ML IN  I  NTERFERON ALFACON-1
INTERFERON ALFACON-1 9MCG/0.3ML INJ     INTERFERON ALFACON-1
INTERFERON BETA-1A (AVONEX/BIOGEN)   ←──────────────   This entry is not
INTERFERON BETA-1B (BETASERON/BERLE     INTERFERON BETA-1B   matched
INTERFERON GAMMA-1B 3MMU/0.5ML INJ      INTERFERON GAMMA-1B
INTERFERON-A 5,000,000U/VI*INJ/CL       INTERFERON ALFA-2B
INVALID RING 18 IN. DIAMETER
```

Step 2: Map entries identified in step 1 to National VA Generic name.

```
   PXRM MANAGERS MENU       Reminder Managers Menu

   RP      Reminder Reports ...
   RX      Reminder Exchange
   RM      Reminder Management ...
   TXM     Taxonomy Management ...
   TRM     Reminder Term Management ...
   CF      Reminder Computed Finding Management ...
   CP      CPRS Reminder Configuration ...
   DM      Dialog Management ...
   INFO    Reminder Information Only Menu ...
   OS      Other Supporting Menus ...
   RT      Reminder Test

Select Reminder Managers Menu Option: TRM  Reminder Term Management

   TL    List Reminder Terms
   TI    Inquire about Reminder Term
   TE    Reminder Term Edit
   TC    Copy Reminder Term

Select Reminder Term Management Option: TE  Reminder Term Edit

Select Reminder Term: INT
    1    INTERFERON ALFA-2A          NATIONAL
    2    INTERFERON ALFA-2B          NATIONAL
    3    INTERFERON ALFA-2B/RIBAVIRIN   NATIONAL
    4    INTERFERON ALFA-3N          NATIONAL
    5    INTERFERON ALFACON-1        NATIONAL

CHOOSE 1-5: 2  INTERFERON ALFA-2B      NATIONAL

Select FINDING ITEM: INTERFERON ALFA-2B// <Enter>
  FINDING ITEM: INTERFERON ALFA-2B//<Enter>
  EFFECTIVE PERIOD: 45D//<Enter>
  USE INACTIVE PROBLEMS: <Enter>
  WITHIN CATEGORY RANK: <Enter>
  CONDITION: <Enter>
  MH SCALE: <Enter>

Select FINDING ITEM: ?                      <Findings is a Variable pointer>
    Answer with FINDINGS FINDING ITEM:
  INTERFERON ALFA-2B

        You may enter a new FINDINGS, if you wish
        Enter a new finding item
        Enter one of the following:
          DR.EntryName to select a DRUG
          ED.EntryName to select a EDUCATION TOPIC
          EX.EntryName to select a EXAM
          HF.EntryName to select a HEALTH FACTOR
          IM.EntryName to select a IMMUNIZATION
          LT.EntryName to select a LABORATORY TEST
          MH.EntryName to select a MENTAL HEALTH INSTRUMENT
          OI.EntryName to select a ORDERABLE ITEM
          RP.EntryName to select a RADIOLOGY PROCEDURE
          CF.EntryName to select a REMINDER COMPUTED FINDING
          TX.EntryName to select a REMINDER TAXONOMY
```

```
            ST.EntryName to select a SKIN TEST
            DC.EntryName to select a VA DRUG CLASS
            DG.EntryName to select a VA GENERIC
            VM.EntryName to select a VITAL MEASUREMENT
                    ^DR.IN
Select FINDING ITEM: DR.INTER        Type DR.INTER > To select the entry from the DRUG File


     Searching for a DRUG, (pointed-to by FINDING ITEM)


      Searching for a DRUG


     1   INTERFERON ALFA-2B 10 MILL UNITS VIAL          IM700          REST TO
HEM/ONC--2/94 (JJW)      RESTRICTED CLASS 2
     2   INTERFERON ALFA-2B 18 MILL UNIT PEN         IM700
     3   INTERFERON ALFA-2B 3 MIL UNITS/VIAL *R*         IM700          *Note C
onc Change to 3 mill Units/0.5ml* Rest to Dr. Morgan 2/94      RESTRICTED CLASS 2
     4   INTERFERON ALFA-2B 3 MILL UNIT PEN          IM700          R C-II to GI
     5    INTERFERON ALFA-2B 5 MILL UNIT/0.5ML VI        IM700          **0.5ml
 vials** R C-II TO Hem/Onc--2/94 (JJW)      RESTRICTED CLASS 2
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 2  INTERFERON ALFA-2B 18 MILL UNIT PEN    IM700    ◄─  This is the DRUG
Are you adding 'INTERFERON ALFA-2B 18 MILL UNIT PEN' as        entry not matched
    a new FINDINGS (the 2ND for this REMINDER TERM)? No// Y  (Yes)
  EFFECTIVE PERIOD: <Enter>
  USE INACTIVE PROBLEMS: <Enter>
  WITHIN CATEGORY RANK: <Enter>
  CONDITION: <Enter>
  MH SCALE: <Enter>
Select FINDING ITEM: <Enter>
```

2nd Example - Mapping Interferon Beta-1A (Avonex/Biogen) with National Entry

```
Select Reminder Term: INTER
     1   INTERFERON ALFA-2A                      NATIONAL
     2   INTERFERON ALFA-2B                         NATIONAL
     3   INTERFERON ALFA-2B/RIBAVIRIN            NATIONAL
     4   INTERFERON ALFA-3N                       NATIONAL
     5   INTERFERON ALFACON-1                    NATIONAL
     6   INTERFERON BETA-1A                       NATIONAL
     7   INTERFERON BETA-1B                      NATIONAL
CHOOSE 1-7: 6  INTERFERON BETA-1A                 NATIONAL
Select FINDING ITEM: INTERFERON BETA-1A//<Enter>
  FINDING ITEM: INTERFERON BETA-1A//<Enter>
  EFFECTIVE PERIOD: 45D//<Enter>
  USE INACTIVE PROBLEMS: <Enter>
  WITHIN CATEGORY RANK: <Enter>
  CONDITION: <Enter>
  MH SCALE: <Enter>
Select FINDING ITEM: ?
    Answer with FINDINGS FINDING ITEM:
   INTERFERON BETA-1A

Select FINDING ITEM: DR.INTE


     Searching for a DRUG, (pointed-to by FINDING ITEM)


     Searching for a DRUG


     1   INTERFERON ALFA-2B 10 MILL UNITS VIAL          IM700          REST TO HEM/
ONC--2/94 (JJW)      RESTRICTED CLASS 2
     2   INTERFERON ALFA-2B 18 MILL UNIT PEN         IM700
```

```
    3   INTERFERON ALFA-2B 3 MIL UNITS/VIAL *R*        IM700          *Note onc Change
to 3 mill Units/0.5ml* Rest to Dr. Morgan 2/94      RESTRICTED CLASS 2
    4   INTERFERON ALFA-2B 3 MILL UNIT PEN            IM700          R C-II to GI

    5   INTERFERON ALFA-2B 5 MILL UNIT/0.5ML VI       IM700          **0.5ml
 vials** R C-II TO Hem/Onc--2/94 (JJW)      RESTRICTED CLASS 2
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5:
    6   INTERFERON ALFA-2B 50 MILL UNITS VIAL         IM700          REST TO H
EM/ONC--2/94 (JJW)      RESTRICTED CLASS 2
    7   INTERFERON ALFACON-1 15MCG/0.5ML INJ          IM700    N/F      **No
nformulary** 12/98 (JJW)
    8   INTERFERON ALFACON-1 9MCG/0.3ML INJ           IM700    N/F      **Non
formulary** 12/98 (JJW)
    9   INTERFERON BETA-1A (AVONEX/BIOGEN)     IM700   DISPENSE A      Map this entry
 MAX OF 30 DAYS SUPPLY ONLY (1 BOX)

10  INTERFERON BETA-1B (BETASERON/BERLEX)            IM900         Restricted C-I to
Neurology--11/96 (JJW)      RESTRICTED CLASS 1

CHOOSE 1-10: 9  INTERFERON BETA-1A (AVONEX/BIOGEN)     IM700         **DISPENSE A MAX
OF 30 DAYS SUPPLY ONLY (1 BOX)**
  Are you adding 'INTERFERON BETA-1A (AVONEX/BIOGEN)' as
    a new FINDINGS (the 2ND for this REMINDER TERM)? No// Y  (Yes)
  EFFECTIVE PERIOD: <Enter>
  USE INACTIVE PROBLEMS: <Enter>
  WITHIN CATEGORY RANK: <Enter>
  CONDITION: ^
Select FINDING ITEM: <Enter>
```

Follow the same steps for Ribavirin.

(At Long Beach, there was no local entry for Ribavirin.)

NOTE from Fargo: You may want to check the drug REBETRON as this is the CMOP name and at Fargo we did not have Ribavirin as a name.

Example #3: VA FileMan Print of Terms and Conditions
Thanks to Margaret Anderson, Black Hills VAMC

```
Print File Entries

OUTPUT FROM WHAT FILE: REMINDER TERM
SORT BY: NAME// <Enter>
START WITH NAME: FIRST// <Enter>

FIRST PRINT FIELD: [RM TERM W/FINDING CONDITION
                           (Aug 09, 2000@15:48) User #193 File #811.5
WANT TO EDIT 'RM TERM W/FINDING CONDITION' TEMPLATE? No// Y  (Yes)
NAME: RM TERM W/FINDING CONDITION  Replace <Enter>
READ ACCESS: @// <Enter>
WRITE ACCESS: @// <Enter>
FIRST PRINT FIELD: NAME// <Enter>
THEN PRINT FIELD: FINDINGS//<Enter>     (multiple)
  THEN PRINT FINDINGS SUB-FIELD: FINDING ITEM//  <Enter>
  THEN PRINT FINDINGS SUB-FIELD: CONDITION// <Enter>
  THEN PRINT FINDINGS SUB-FIELD: <Enter>
THEN PRINT FIELD:
Heading (S/C): REMINDER TERM LIST// <Enter>
STORE PRINT LOGIC IN TEMPLATE:
DEVICE: 0;;99  TELNET    Right Margin: 80//<Enter>


REMINDER TERM LIST                            AUG 10,2000  11:03    PAGE 1
NAME
    FINDING ITEM                     CONDITION
--------------------------------------------------------------------------------

ALANINE AMINO (ALT) (SGPT)
    ALT
BILIRUBIN
    BILIRUBIN, TOTAL
    DIRECT BILIRUBIN
DECLINED HEP C RISK ASSESSMENT
    DECLINED HEP C RISK ASSESSMENT
HAV Ab positive
    HEPATITIS A ANTIBODY,TOTAL     I V="REACTIVE"
    HEP A AB,T(49.42)CCL283(DC 3/3 I (V["POS")!(V["Pos")
HAV IgG positive
HAV IgM Ab positive
    HEPATITIS A AB,IGM             I V="REACTIVE"
HBc Ab IgM positive
    HEPATITIS B CORE AB,IGM        I V="REACTIVE"
HBe Ag positive
HBs Ab positive
    HEPATITIS B SURFACE AB         I V="REACTIVE"
HBs Ag positive
    HEPATITIS B SURFACE AG         I V="REACTIVE"
    HBSAG-*Needlestick($40)Meritic I (V["POS")!(V["Pos")
HEP C VIRUS ANTIBODY NEGATIVE
    HEPATITIS C AB                 I (V["NEG")!(V["Neg")
    HEP C RNA QUALITATIVE-MVA(for  I (V["NEG")!(V["Neg")
HEP C VIRUS ANTIBODY POSITIVE
    HEPATITIS C AB                 I (V["POS")!(V["Pos")
    HEP C RNA QUALITATIVE-MVA(for  I (V["POS")!(V["Pos")
HEPATITIS C INFECTION
    VA-HEPATITIS C INFECTION
INTERFERON ALFA-2A
    INTERFERON ALFA-2A
```

```
INTERFERON ALFA-2B
     INTERFERON ALFA-2B
INTERFERON ALFA-2B/RIBAVIRIN
     INTERFERON ALFA-2B/RIBAVIRIN
INTERFERON ALFA-3N
     INTERFERON ALFA-3N
INTERFERON ALFACON-1
     INTERFERON ALFACON-1
INTERFERON BETA-1A
     INTERFERON BETA-1A
INTERFERON BETA-1B
     INTERFERON BETA-1B
NO RISK FACTORS FOR HEP C
     NO RISK FACTORS FOR HEP C
PREV POSITIVE TEST FOR HEP C
     PREV POSITIVE TEST FOR HEP C
RIBAVIRIN
     RIBAVIRIN
RISK FACTOR FOR HEPATITIS C
     RISK FACTOR FOR HEPATITIS C
TRANSFERASE (AST) (SGOT)
     AST
```

Creating a Reminder Dialog for Hepatitis C Risk Assessment

After mapping local findings to the national terms, you can copy the national Risk Assessment reminder to a local reminder and then modify it for your site's use (or use the local one that you have already copied). To allow resolution of the reminder through CPRS, you must create a reminder dialog linked to the reminder and activate parameters that make it available in CPRS. Directions for doing this are provided in the *Clinical Reminders Manager Manua*l. Examples of reminder dialogs created by sites are shown in the following pages, including how they set up the reminder and created these dialogs

NOTE: In most of the examples, the term PREV POSITIVE TEST FOR HEP C is listed, because the name hadn't been changed yet to PREVIOUSLY ASSESSED HEP C RISK when the dialogs were created. If you are following any of these examples, just substitute Previously Assessed for Previous Positive.

Example #1: Creating a clinical reminder dialog for the Hep C Risk Assessment.
Thanks to Tamara Diltz, Cincinnati VAMC, Alpha test site

As in building quick orders, generic orders, order sets, and order menus in CPRS, you need to build the individual pieces first, so you will have these to put in your dialog. For the Hepatitis C Risk Assessment, you will need to copy the new reminder or update your existing one, since there are some changes since the reminder was first released (Patch PX*1*85 in March). For documentation on how to create Reminder Dialogs, refer to Chapter 8 of the Clinical Reminders Manager Menu. What is captured below is a sample of how to create a clinical reminder dialog for the Hep C Risk Assessment.

1. If you decide to use the Autogenerate function in Reminders, you need to look at all the finding items that make up that reminder first. For example, the Hepatitis C reminder has four Health Factors (which are finding items). You will need to give these a "Resolution Status" before you can autogenerate (see Clinical Reminders V. 1.5 Manager Manual, pages 56-57). Use the "Health Factor Resolutions" option to ADD them one by one. It is up to your site to decide which resolution status you want to use; just be sure that the "DECLINED HEP C RISK ASSESSMENT" gets mapped to the "PATIENT REFUSED" resolution status.

```
Select Reminder Managers Menu Option: DM Dialog Management
   DP      Dialog Parameters ...
   DI      Reminder Dialogs

Select Dialog Management Option: DP  Dialog Parameters


   RS      Reminder Resolution Statuses
   HR      Health Factor Resolutions
   FP      General Finding Type Parameters
   FI      Finding Item Parameters
   TD      Taxonomy Dialog Parameters
Select Dialog Parameters Option: HR  Health Factor Resolutions
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Selection List                  Jul 19, 2000 12:00:06        Page:   1 of   1
Health Factor Resolutions


 Item Health Factors                    Resolution Status
   1  DECLINED HEP C RISK ASSESSMENT    PATIENT REFUSED
   2  NO RISK FACTORS FOR HEP C         OTHER
   3  PREV POSITIVE TEST FOR HEP C      DONE ELSEWHERE (HISTORICAL)
   4  RISK FACTOR FOR HEPATITIS C       OTHER


          + Next Screen   - Prev Screen   ?? More Actions              >>>
AD   Add                 PT   List/Print All      QU   Quit
Select Item: Quit//
```

2. Next, you can use the "Reminder Dialog" option to Autogenerate the interactive
dialog for the Hepatitis C reminder. Once the dialog is generated, you can make any
necessary changes. For example, I removed the " HEP C CODES" since this is the
taxonomy that is used to turn off the reminder for those patients that already have
the disease.

```
 Select Reminder Managers Menu Option: dm  Dialog Management


    DP      Dialog Parameters ...
    DI      Reminder Dialogs

Select Dialog Management Option: DI  Reminder Dialogs
    1  ALCOHOL USE SCREEN (V)
    2  BREAST CANCER SCREEN
    3  CERVICAL CANCER SCREEN
    4  CERVICAL CANCER SCREEN (L)
    5  CHOLESTEROL SCREEN (F)
    6  CHOLESTEROL SCREEN (M)
    7  COLORECTAL CANCER SCREEN (FOBT)
    8  COLORECTAL CANCER SCREEN (SIG.)
    9  DEMENTIA YEARLY EVALUATION
   10  DIGITAL RECTAL (PROSTATE) EXAM (V)
   11  DISEASE NUTRITION/EXERCISE ED.
   12  DM PEDAL PULSES EXAM (V)
   13  DM SENSORY FOOT EXAM (V)
   14  DM VISUAL FOOT INSPECTION (V)
   15  FLEXISIGMOIDOSCOPY
   16  HEMOGLOBIN A1C (V)
   17  HEP C RISK ASSESSMENT (V1.0)
   18  HEP C RISK ASSESSMENT (V1.5)
   19  HEPATITIS C SCREEN (L)
   20  HYPERTENSION SCREEN
   21  HYPERTENSION SCREEN (V)
          + Next Screen   - Prev Screen   ?? More Actions              >>>
AR   All reminders       LR   Linked Reminders    QU   Quit
CV   Change View         RN   Name/Print Name
Select Item: Next Screen// 18
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog Selection List          Jul 24, 2000 14:18:43        Page:    1 of    1
REMINDER NAME: HEP C RISK ASSESSMENT (V1.5)
 Item Dialog Name                       Latest Update      Linked Reminders
    * NO DIALOGS DEFINED *



              + Next Screen   - Prev Screen   ?? More Actions                >>>
AD   Autogenerate Dialog            QU   Quit
LR   Link Reminder
Select Item: Quit// AD   Autogenerate Dialog

REMINDER NAME: HEP C RISK ASSESSMENT (V1.5)
GENERATE DIALOG AUTOMATICALLY: Y//<Enter> ES
ENTER A UNIQUE DIALOG NAME: HEP C RISK ASSESSMENT (V1.5)
  Replace <Enter>
LINK DIALOG TO REMINDER: YES//<Enter>
ENABLE DIALOG: NO// YES
REPLACE ANY EXISTING DIALOG ELEMENTS? NO// YES
Building dialog  - HEP C RISK ASSESSMENT (V1.5)

1    Patient had prev positive test for hep c recorded.

2    Patient had risk factor for hepatitis c recorded.

3    Patient had no risk factors for hep c recorded.

4    Patient had declined hep c risk assessment recorded.

5    HEP C CODES

Updating Dialog Elements
Updating Reminder Dialog
Dialog build complete
```

```
Dialog Selection List          Jul 24, 2000 14:19:01        Page:    1 of    1
REMINDER NAME: HEP C RISK ASSESSMENT (V1.5)
 Item Dialog Name                       Latest Update      Linked Reminders

This reminder is linked to dialog:

  1  HEP C RISK ASSESSMENT (V1.5)    Jul 24, 2000       HEP C RISK ASSESSMENT



              + Next Screen   - Prev Screen   ?? More Actions                >>>
AD   Autogenerate Dialog            QU   Quit
LR   Link Reminder
Select Item: Quit// 1
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog Edit List          Jul 24, 2000 14:23:28           Page:    1 of    2
REMINDER DIALOG NAME: HEP C RISK ASSESSMENT (V1.5)
 Sequence      Dialog Text
   5            Patient had prev positive test for hep c recorded.
                   Date:
                   Location:
                   Comment:

  10            Patient had risk factor for hepatitis c recorded.
                   Comment:

  15            Patient had no risk factors for hep c recorded.
                   Comment:

  20            Patient had declined hep c risk assessment recorded.


  25            HEP C CODES



          + Next Screen   - Prev Screen   ?? More Actions            >>>
CO   Copy Dialog         DT    Dialog Text         RI   Reminder Inquiry
DD   Detailed Display    ED    Edit/Delete Dialog  QU   Quit
DP   Progress Note Text  INQ   Inquiry/Print
Select Sequence: Next Screen// ED    Edit/Delete Dialog


NAME: HEP C RISK ASSESSMENT (V1.5)  Replace <Enter>
DISABLE: <Enter>
SOURCE REMINDER: HEP C RISK ASSESSMENT (V1.5)// <Enter>
Select SEQUENCE: 25// ?
 Answer with COMPONENTS SEQUENCE, or ITEM
Choose from:
   5      HF PREV POSITIVE TEST FOR HEP C DONE ELSEWHERE
   10     HF RISK FACTOR FOR HEPATITIS C OTHER
   15     HF NO RISK FACTORS FOR HEP C OTHER
   20     HF DECLINED HEP C RISK ASSESSMENT REFUSED
   25     TX HEP C CODES


     You may enter a new COMPONENTS, if you wish
     Type a Number between .1 and 999.9, 1 Decimal Digit
Select SEQUENCE: 25// @
   SURE YOU WANT TO DELETE THE ENTIRE '25' SEQUENCE? Y  (Yes)
Select SEQUENCE: 20// ?
 Answer with COMPONENTS SEQUENCE, or ITEM
Choose from:
   5      HF PREV POSITIVE TEST FOR HEP C DONE ELSEWHERE
   10     HF RISK FACTOR FOR HEPATITIS C OTHER
   15     HF NO RISK FACTORS FOR HEP C OTHER
   20     HF DECLINED HEP C RISK ASSESSMENT REFUSED


     You may enter a new COMPONENTS, if you wish
     Type a Number between .1 and 999.9, 1 Decimal Digit
Select SEQUENCE: 20// <Enter>
  SEQUENCE: 20// <Enter>
  DIALOG ELEMENT/GROUP: HF DECLINED HEP C RISK ASSESSMENT REFUSED
        //
Select SEQUENCE: <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog Edit List              Jul 24, 2000 14:23:50       Page:   1 of   2
REMINDER DIALOG NAME: HEP C RISK ASSESSMENT (V1.5)
 Sequence      Dialog Text
  5           Patient had prev positive test for hep c recorded.
                 Date:
                 Location:
                 Comment:

 10           Patient had risk factor for hepatitis c recorded.
                 Comment:

 15           Patient had no risk factors for hep c recorded.
                 Comment:

 20           Patient had declined hep c risk assessment recorded.

          + Next Screen    - Prev Screen   ?? More Actions           >>>
CO   Copy Dialog        DT   Dialog Text        RI   Reminder Inquiry
DD   Detailed Display   ED   Edit/Delete Dialog QU   Quit
DP   Progress Note Text INQ  Inquiry/Print
Select Sequence: Next Screen//
```

3. This step is optional, but I decided to copy the National heath factors over and make them local ones. Since I installed multiple versions of the Clinical Reminders and patch PX*1.5*1, I found that **my Progress Note text and Dialog prompts were getting overwritten on each version I installed. Once I copied them, I could make any changes to wording or add/delete prompts to customize it.**

```
Dialog List                   Jul 24, 2000 14:57:29       Page:   1 of   1
DIALOG VIEW (DIALOG ELEMENTS)

 Item Dialog Name                            Dialog type        Status
   1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
   2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
   3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
   4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
   5  TX HEP C CODES                          Dialog Element

          Enter ?? for more actions                              >>>
AD   Add                CV   Change View        INQ  Inquiry/Print
CO   Copy Dialog        PT   List/Print All     QU   Quit
Select Item: Quit// co   Copy Dialog
Select the dialog to copy: HF DECLINED HEP C RISK ASSESSMENT REFUSED
dialog element
        ...OK? Yes//<Enter>   (Yes)

ENTER A UNIQUE NAME: HFZ DECLINED HEP C RISK ASSESSMENT REFUSED

Completed copy of 'HF DECLINED HEP C RISK ASSESSMENT REFUSED'
into 'HFZ DECLINED HEP C RISK ASSESSMENT REFUSED'
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                    Jul 24, 2000 14:58:19          Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)


 Item Dialog Name                              Dialog type          Status
    1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
    2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
    3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
    4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
    5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
    6  TX HEP C CODES                          Dialog Element

          + Next Screen   - Prev Screen   ?? More Actions                  >>>
AD   Add                   CV   Change View      INQ  Inquiry/Print
CO   Copy Dialog           PT   List/Print All    QU   Quit
Select Item: Quit// CO   Copy Dialog


Select the dialog to copy: HF NO RISK FACTORS FOR HEP C OTHER        dialog
element
        ...OK? Yes// <Enter>   (Yes)


ENTER A UNIQUE NAME: HFZ NO RISK FACTORS FOR HEP C OTHER


Completed copy of 'HF NO RISK FACTORS FOR HEP C OTHER'
into 'HFZ NO RISK FACTORS FOR HEP C OTHER'
```

```
Dialog List                    Jul 24, 2000 14:59:01          Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)


 Item Dialog Name                              Dialog type          Status
    1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
    2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
    3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
    4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
    5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
    6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
    7  TX HEP C CODES                          Dialog Element



          + Next Screen   - Prev Screen   ?? More Actions                  >>>
AD   Add                   CV   Change View      INQ  Inquiry/Print
CO   Copy Dialog           PT   List/Print All    QU   Quit
Select Item: Quit// CO   Copy Dialog
 Select the dialog to copy: HF
     1    HF DECLINED HEP C RISK ASSESSMENT REFUSED      dialog element
     2    HF NO RISK FACTORS FOR HEP C OTHER       dialog element
     3    HF PREV POSITIVE TEST FOR HEP C DONE ELSEWHERE      dialog element
     4    HF RISK FACTOR FOR HEPATITIS C OTHER       dialog element
     5    HFZ DECLINED HEP C RISK ASSESSMENT REFUSED       dialog element
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 3  HF PREV POSITIVE TEST FOR HEP C DONE ELSEWHERE     dialog
element
ENTER A UNIQUE NAME: HFZ PREV POSITIVE TEST FOR HEP C DONE ELSEWHERE


Completed copy of 'HF PREV POSITIVE TEST FOR HEP C DONE ELSEWHERE'
into 'HFZ PREV POSITIVE TEST FOR HEP C DONE ELSEWHERE'
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                    Jul 24, 2000 14:59:52       Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)

 Item Dialog Name                           Dialog type           Status
   1   HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
   2   HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
   3   HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
   4   HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
   5   HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
   6   HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
   7   HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
   8   TX HEP C CODES                          Dialog Element


          + Next Screen    - Prev Screen   ?? More Actions              >>>
AD   Add                  CV   Change View       INQ  Inquiry/Print
CO   Copy Dialog          PT   List/Print All     QU  Quit
Select Item: Quit// CO   Copy Dialog


Select the dialog to copy: HF RISK FACTOR FOR HEPATITIS C OTHER       dialog
element
        ...OK? Yes// <Enter>   (Yes)

ENTER A UNIQUE NAME: HFZ RISK FACTOR FOR HEPATITIS C OTHER

Completed copy of 'HF RISK FACTOR FOR HEPATITIS C OTHER'
into 'HFZ RISK FACTOR FOR HEPATITIS C OTHER'
```

```
Dialog List                    Jul 24, 2000 15:00:29       Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)

 Item Dialog Name                           Dialog type           Status
   1   HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
   2   HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
   3   HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
   4   HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
   5   HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
   6   HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
   7   HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
   8   HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
   9   TX HEP C CODES                          Dialog Element



          + Next Screen    - Prev Screen   ?? More Actions              >>>
AD   Add                  CV   Change View       INQ  Inquiry/Print
CO   Copy Dialog          PT   List/Print All     QU  Quit
Select Item: Quit// <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                    Jul 24, 2000 15:00:29        Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)

 Item Dialog Name                                Dialog type          Status
    1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
    2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
    3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
    4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
    5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
    6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
    7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
    8  HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
    9  TX HEP C CODES                          Dialog Element


         + Next Screen   - Prev Screen   ?? More Actions              >>>
AD   Add                 CV   Change View       INQ  Inquiry/Print
CO   Copy Dialog         PT   List/Print All     QU  Quit
Select Item: Quit// 5
Dialog Name:  HFZ DECLINED HEP C RISK ASSESSMENT REFUSED


Not used by any other dialog

NAME: HFZ DECLINED HEP C RISK ASSESSMENT REFUSED  Replace <Enter>
DISABLE: <Enter>
RESOLUTION TYPE: PATIENT REFUSED//<Enter>
FINDING ITEM: DECLINED HEP C RISK ASSESSMENT//<Enter>
DIALOG/PROGRESS NOTE TEXT: <Enter>
Patient had declined hep c risk assessment recorded.

  Edit? NO// y  YES


Patient had declined hep c risk assessment recorded. (DELETE TEXT THEN ADD NEW
TEXT)

==[ WRAP ]==[ INSERT ]=====< DIALOG/PROGRESS NOTE TEXT >====[ <PF1>H=Help ]====
3. PATIENT DECLINED HEPATITIS C RISK ASSESSMENT.


<======T=======T=======T=======T=======T=======T=======T=======T=======T>======


ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// y  YES


==[ WRAP ]==[ INSERT ]===< ALTERNATE PROGRESS NOTE TEXT >===[ <PF1>H=Help ]====
Patient Declined Hepatitis C Risk Assessment at this encounter.


<=======T=======T=======T=======T=======T=======T=======T=======T=======T>====



EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: ?
     You may enter a new COMPONENTS, if you wish
     Type a Number between .1 and 999.9, 1 Decimal Digit
Select SEQUENCE: 1   (ADD A PROMPT FOR COMMENT)
  ADDITIONAL PROMPT/FORCED VALUE: PXRM COMMENT        prompt
        ...OK? Yes// <Enter>  (Yes)
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
   OVERRIDE PROMPT CAPTION:
   START NEW LINE: Y  YES
   EXCLUDE FROM PN TEXT: <Enter>
   REQUIRED: Y  YES
Select SEQUENCE: <Enter>
```

```
Dialog List                    Jul 24, 2000 15:07:53        Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)


 Item Dialog Name                             Dialog type          Status
   1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
   2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
   3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
   4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
   5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
   6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
   7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
   8  HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
   9  TX HEP C CODES                          Dialog Element



          Enter ?? for more actions                                      >>>
AD   Add                  CV    Change View       INQ  Inquiry/Print
CO   Copy Dialog          PT    List/Print All     QU   Quit
Select Item: Quit// 6


Dialog Name:  HFZ NO RISK FACTORS FOR HEP C OTHER


Not used by any other dialog


NAME: HFZ NO RISK FACTORS FOR HEP C OTHER  Replace <Enter>
DISABLE: <Enter>
RESOLUTION TYPE: OTHER//<Enter>
FINDING ITEM: NO RISK FACTORS FOR HEP C//<Enter>
DIALOG/PROGRESS NOTE TEXT: <Enter>
Patient had no risk factors for hep c recorded.

  Edit? NO// YES


Patient had no risk factors for hep c recorded. (DELETE TEXT THEN ADD NEW TEXT)

==[ WRAP ]==[ INSERT ]=====< DIALOG/PROGRESS NOTE TEXT >====[ <PF1>H=Help ]====
2. PATIENT HAS NO RISK FACTORS FOR HEPATITIS C.


<=======T=======T=======T=======T=======T=======T=======T=======T=======T>=====



ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// YES



==[ WRAP ]==[ INSERT ]===< ALTERNATE PROGRESS NOTE TEXT >===[ <PF1>H=Help ]====
Patient indicates No Risk Factors for Hepatitis C at this encounter.


<=======T=======T=======T=======T=======T=======T=======T=======T=======T>=====
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT:
Select SEQUENCE: 1// ?
 Answer with COMPONENTS SEQUENCE, or ITEM:
   1       PXRM COMMENT

     You may enter a new COMPONENTS, if you wish
     Type a Number between .1 and 999.9, 1 Decimal Digit
Select SEQUENCE: 1// @    (DELETE COMMENT  PROMPT IF NOT NEEDED)
   SURE YOU WANT TO DELETE THE ENTIRE '1' SEQUENCE? Y  (Yes)
Select SEQUENCE: <Enter>
```

```
Dialog List                      Jul 24, 2000 15:24:06        Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)


 Item Dialog Name                              Dialog type           Status
   1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
   2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
   3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
   4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
   5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
   6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
   7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
   8  HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
   9  TX HEP C CODES                          Dialog Element



          Enter ?? for more actions                                    >>>
AD   Add                  CV    Change View       INQ  Inquiry/Print
CO   Copy Dialog          PT    List/Print All    QU   Quit
Select Item: Quit// 7


Dialog Name:  HFZ PREV POSITIVE TEST FOR HEP C DONE ELSEWHERE


Not used by any other dialog


NAME: HFZ PREV POSITIVE TEST FOR HEP C DONE ELSEWHERE
         Replace <Enter>
DISABLE: <Enter>
RESOLUTION TYPE: DONE ELSEWHERE (HISTORICAL)// <Enter>
FINDING ITEM: PREV POSITIVE TEST FOR HEP C// <Enter>
DIALOG/PROGRESS NOTE TEXT:
Patient had prev positive test for hep c recorded.

  Edit? NO// YES

Patient had prev positive test for hep c recorded. (DELETE TEXT AND ADD NEW
TEXT)

==[ WRAP ]==[ INSERT ]=====< DIALOG/PROGRESS NOTE TEXT >====[ <PF1>H=Help ]====
4. PATIENT HAD OUTSIDE PREVIOUS POSITIVE TEST FOR HEPATITS C.



<=====T=======T=======T=======T=======T=======T=======T=======T=======T>=====


ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// YES
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
==[ WRAP ]==[ INSERT ]===< ALTERNATE PROGRESS NOTE TEXT >===[ <PF1>H=Help ]====
Patient had outside Previous Positive Test for Hepatitis C.
<======T=======T=======T=======T=======T=======T=======T=======T=======T>======
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: 3// ?
 Answer with COMPONENTS SEQUENCE, or ITEM
Choose from:
   1       PXRM VISIT DATE
   2       PXRM OUTSIDE LOCATION
   3       PXRM COMMENT
     You may enter a new COMPONENTS, if you wish
     Type a Number between .1 and 999.9, 1 Decimal Digit
Select SEQUENCE: 3// 1    PXRM VISIT DATE
  SEQUENCE: 1// <Enter>
  ADDITIONAL PROMPT/FORCED VALUE: PXRM VISIT DATE
        // <Enter>
  OVERRIDE PROMPT CAPTION: <Enter>
  START NEW LINE: Y  YES
  EXCLUDE FROM PN TEXT: <Enter>
  REQUIRED: YES// <Enter>
Select SEQUENCE: 2    PXRM OUTSIDE LOCATION
  SEQUENCE: 2// <Enter>
  ADDITIONAL PROMPT/FORCED VALUE: PXRM OUTSIDE LOCATION
        // <Enter>
  OVERRIDE PROMPT CAPTION: <Enter>
  START NEW LINE: Y  YES
  EXCLUDE FROM PN TEXT: <Enter>
  REQUIRED: Y  YES
Select SEQUENCE: 3    PXRM COMMENT
  SEQUENCE: 3// <Enter>
  ADDITIONAL PROMPT/FORCED VALUE: PXRM COMMENT// <Enter>
  OVERRIDE PROMPT CAPTION: <Enter>
  START NEW LINE: Y  YES
  EXCLUDE FROM PN TEXT: <Enter>
  REQUIRED: <Enter>
Select SEQUENCE: <Enter>
```

```
Dialog List                    Jul 24, 2000 15:37:36        Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)


 Item Dialog Name                              Dialog type          Status
   1   HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
   2   HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
   3   HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
   4   HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
   5   HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
   6   HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
   7   HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
   8   HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
   9   TX HEP C CODES                          Dialog Element

          Enter ?? for more actions                                    >>>
AD    Add                   CV    Change View        INQ  Inquiry/Print
CO    Copy Dialog           PT    List/Print All      QU   Quit
Select Item: Quit// 8
Dialog Name:  HFZ RISK FACTOR FOR HEPATITIS C OTHER
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Not used by any other dialog

NAME: HFZ RISK FACTOR FOR HEPATITIS C OTHER  Replace  <Enter>
DISABLE: <Enter>
RESOLUTION TYPE: OTHER// <Enter>
FINDING ITEM: RISK FACTOR FOR HEPATITIS C// <Enter>
DIALOG/PROGRESS NOTE TEXT:
Patient had risk factor for hepatitis c recorded.

  Edit? NO// YES

Patient had risk factor for hepatitis c recorded. (DELETE TEXT AND ADD NEW
TEXT)

==[ WRAP ]==[ INSERT ]=====< DIALOG/PROGRESS NOTE TEXT >====[ <PF1>H=Help ]====
1. PATIENT HAS RISK FACTOR(S) FOR HEPATITIS C.


<=======T=======T=======T=======T=======T=======T=======T=======T=======T>=====


ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// YES

==[ WRAP ]==[ INSERT ]===< ALTERNATE PROGRESS NOTE TEXT >===[ <PF1>H=Help ]====
Patient indicates Risk Factor(s) for Hepatitis C at this encounter.


<=======T=======T=======T=======T=======T=======T=======T=======T======T>======


EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS:
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: 1// ?
 Answer with COMPONENTS SEQUENCE, or ITEM:
    1       PXRM COMMENT

     You may enter a new COMPONENTS, if you wish
     Type a Number between .1 and 999.9, 1 Decimal Digit
Select SEQUENCE: 1// @     (DELETE COMMENT  PROMPT IF NOT NEEDED)
   SURE YOU WANT TO DELETE THE ENTIRE '1' SEQUENCE? Y  (Yes)
Select SEQUENCE: <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                    Jul 24, 2000 15:38:35        Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)


 Item Dialog Name                              Dialog type           Status
   1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
   2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
   3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
   4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
   5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
   6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
   7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
   8  HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
   9  TX HEP C CODES                          Dialog Element



          Enter ?? for more actions                                      >>>
AD    Add                 CV    Change View        INQ  Inquiry/Print
CO    Copy Dialog         PT    List/Print All     QU   Quit
Select Item: Quit//<Enter>
```

4. Next I made the four local health factors in my reminder dialog work together as a group and only allow one selection within that group. This prevents a user from picking more than one health factor, which in this case might be conflicting. If they are a part of a group where only one selection is allowed, **then if they check a different box, the first box they selected gets unchecked.**

```
Select Dialog Management Option:  Reminder Dialogs


Dialog List                    Jul 24, 2000 15:54:49        Page:    1 of    6
REMINDER VIEW (ALL REMINDERS BY NAME)


 Item Reminder Name                    Linked Dialog Name & Dialog Status
   1  ALCOHOL USE SCREEN (V)
   2  BREAST CANCER SCREEN
   3  CERVICAL CANCER SCREEN
   4  CERVICAL CANCER SCREEN (L)
   5  CHOLESTEROL SCREEN (F)
   6  CHOLESTEROL SCREEN (M)
   7  COLORECTAL CANCER SCREEN (FOBT)
   8  COLORECTAL CANCER SCREEN (SIG.)
   9  DEMENTIA YEARLY EVALUATION
  10  DIGITAL RECTAL (PROSTATE) EXAM (V)
  11  DISEASE NUTRITION/EXERCISE ED.
  12  DM PEDAL PULSES EXAM (V)
  13  DM SENSORY FOOT EXAM (V)
  14  DM VISUAL FOOT INSPECTION (V)
  15  FLEXISIGMOIDOSCOPY
  16  HEMOGLOBIN A1C (V)
          Enter ?? for more actions                                      >>>
AR    All reminders       LR    Linked Reminders   QU   Quit
CV    Change View         RN    Name/Print Name
Select Item: Next Screen// cv   Change View
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
      Select one of the following:

            D          Reminder Dialogs
            E          Dialog Elements
            F          Forced Values
            G          Dialog Groups
            P          Additional Prompts
            R          Reminders
            RG         Result Group (Mental Health)
            RE         Result Element (Mental Health)


TYPE OF VIEW: R// g  Dialog Groups
```

```
Dialog List                  Jul 24, 2000 15:55:42       Page:    0 of    0
DIALOG VIEW (DIALOG GROUPS)


 Item Dialog Name                             Dialog type          Status



          + Next Screen   - Prev Screen   ?? More Actions                >>>
AD   Add                   CV   Change View        INQ  Inquiry/Print
CO   Copy Dialog           PT   List/Print All     QU   Quit

Select Item: Quit// AD   Add

Select DIALOG to add: ?
 Answer with REMINDER DIALOG NAME
 Do you want the entire 51-Entry REMINDER DIALOG List? N  (No)
Select DIALOG to add: GPZ HEPATITIS C HEALTH FACTORS GROUP
  Are you adding 'GPZ HEPATITIS C HEALTH FACTORS GROUP' as
    a new REMINDER DIALOG (the 52ND)? No// Y  (Yes)


Not used by any other dialog

NAME: GPZ HEPATITIS C HEALTH FACTORS GROUP  Replace <Enter>
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: <Enter>
GROUP CAPTION: <Enter>
PUT A BOX AROUND THE GROUP: ?
     Enter Y to add a box around the components.
     Choose from:
       Y       YES
       N       NO
PUT A BOX AROUND THE GROUP: Y  YES
SHARE COMMON PROMPTS: <Enter>
MULTIPLE SELECTION: ?
     Enter 1 for one selection only. Enter 2 for one or more. Enter 0 for no
     selection required.
     Choose from:
       1         ONE SELECTION ONLY
       2         ONE OR MORE SELECTIONS
       0         NO SELECTION REQUIRED
MULTIPLE SELECTION: 1  ONE SELECTION ONLY
HIDE/SHOW GROUP: /??
     Enter HIDE or SHOW
     Choose from:
       1         HIDE
       0         SHOW
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
HIDE/SHOW GROUP: SHOW
GROUP HEADER DIALOG TEXT:
  No existing text
  Edit? NO// YES


==[ WRAP ]==[ INSERT ]======< GROUP HEADER DIALOG TEXT >=====[ <PF1>H=Help ]

HEPATITIS C HEALTH FACTORS

Risk factors for Hepatitis C include Blood Transfusion(prior to 1992),
IV Drug Use, Exposure to Blood/Blood Products, Multiple Sexual Partners,
Hemodialysis, Tattoo/Body Piercing, Cocaine Use, Unexplained Liver Disease,
Unexplained Abnormal ALT/SGPT, History of Alcohol Abuse.


<=======T=======T=======T=======T=======T=======T=======T=======T=======T


GROUP HEADER ALTERNATE P/N TEXT:
  No existing text
  Edit? NO//<Enter>


EXCLUDE FROM PROGRESS NOTE:
SUPPRESS CHECKBOX: ?
     Enter 1 if the WP text is for display only.
     Choose from:
       1        SUPPRESS
SUPPRESS CHECKBOX: 1  SUPPRESS
NUMBER OF INDENTS: ?
     Enter the number of indents required (between 0 and 4).
NUMBER OF INDENTS: 1
INDENT PROGRESS NOTE TEXT: ?
     Enter 1 if the progress note text should be indented. Enter 0 if no indent
     is required.
     Choose from:
       1        INDENT
       0        NO INDENT
INDENT PROGRESS NOTE TEXT: 1   INDENT
Select ADDITIONAL FINDINGS: <Enter>
Select SEQUENCE: 1
  DIALOG ELEMENT: HFZ RISK FACTOR FOR HEPATITIS C OTHER      dialog element
        ...OK? Yes//  <Enter>  (Yes)

Select SEQUENCE: 2
  DIALOG ELEMENT: HFZ NO RISK FACTORS FOR HEP C OTHER      dialog element
        ...OK? Yes//  <Enter>  (Yes)

Select SEQUENCE: 3
  DIALOG ELEMENT: HFZ DECLINED HEP C RISK ASSESSMENT REFUSED      dialog
element
        ...OK? Yes//  <Enter>  (Yes)

Select SEQUENCE: 4
  DIALOG ELEMENT: HFZ PREV POSITIVE TEST FOR HEP C DONE ELSEWHERE      dialog
element
        ...OK? Yes//  <Enter>  (Yes)

Select SEQUENCE: <Enter>
Select DIALOG to add: <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                     Jul 24, 2000 16:10:18        Page:    1 of    1
DIALOG VIEW (DIALOG GROUPS)


 Item Dialog Name                              Dialog type            Status
   1  GPZ HEPATITIS C HEALTH FACTORS GROUP    Dialog Group



          + Next Screen   - Prev Screen   ?? More Actions               >>>
AD   Add                 CV    Change View        INQ   Inquiry/Print
CO   Copy Dialog         PT    List/Print All     QU    Quit
Select Item: Quit//
```

5. Now that you have your local dialog group, you can delete the separate health factors from
   your Hep C reminder dialog and just add the group instead.

```
Select Dialog Management Option:  Reminder Dialogs

Dialog List                     Jul 24, 2000 16:17:34        Page:    1 of    6
REMINDER VIEW (ALL REMINDERS BY NAME)

 Item Reminder Name                        Linked Dialog Name & Dialog Status
   1  ALCOHOL USE SCREEN (V)
   2  BREAST CANCER SCREEN
   3  CERVICAL CANCER SCREEN
   4  CERVICAL CANCER SCREEN (L)
   5  CHOLESTEROL SCREEN (F)
   6  CHOLESTEROL SCREEN (M)
   7  COLORECTAL CANCER SCREEN (FOBT)
   8  COLORECTAL CANCER SCREEN (SIG.)
   9  DEMENTIA YEARLY EVALUATION
  10  DIGITAL RECTAL (PROSTATE) EXAM (V)
  11  DISEASE NUTRITION/EXERCISE ED.
  12  DM PEDAL PULSES EXAM (V)
  13  DM SENSORY FOOT EXAM (V)
  14  DM VISUAL FOOT INSPECTION (V)
  15  FLEXISIGMOIDOSCOPY
  16  HEMOGLOBIN A1C (V)
          Enter ?? for more actions                                     >>>
AR   All reminders       LR    Linked Reminders   QU    Quit
CV   Change View         RN    Name/Print Name
Select Item: Next Screen// cv   Change View


     Select one of the following:


         D          Reminder Dialogs
         E          Dialog Elements
         F          Forced Values
         G          Dialog Groups
         P          Additional Prompts
         R          Reminders
         RG         Result Group (Mental Health)
         RE         Result Element (Mental Health)

TYPE OF VIEW: R// D  Reminder Dialogs
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                    Jul 24, 2000 16:17:40        Page:    1 of    1
DIALOG VIEW (REMINDER DIALOGS - SOURCE REMINDER NAME)

 Item Reminder Dialog Name                        Source Reminder       Status
   1  HEP C RISK ASSESSMENT (V1.5)                HEP C RISK ASSESSMENT (V1 Linked


          + Next Screen   - Prev Screen   ?? More Actions                  >>>
AD   Add Reminder Dialog  PT   List/Print All      QU   Quit
CV   Change View          RN   Name/Print Name
Select Item: Quit// 1
```

```
Dialog Edit List               Jul 24, 2000 16:17:43        Page:    1 of    2
REMINDER DIALOG NAME: HEP C RISK ASSESSMENT (V1.5)
 Sequence       Dialog Text
   5            Patient had prev positive test for hep c recorded.
                    Date:
                    Location:
                    Comment:

  10            Patient had risk factor for hepatitis c recorded.
                    Comment:

  15            Patient had no risk factors for hep c recorded.
                    Comment:

  20            Patient had declined hep c risk assessment recorded.

          + Next Screen    - Prev Screen   ?? More Actions                 >>>
CO   Copy Dialog          DT   Dialog Text          RI   Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog   QU   Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Sequence: Next Screen// ed   Edit/Delete Dialog


NAME: HEP C RISK ASSESSMENT (V1.5)  Replace <Enter>
DISABLE: <Enter>
SOURCE REMINDER: HEP C RISK ASSESSMENT (V1.5)// <Enter>
Select SEQUENCE: 20// ?
 Answer with COMPONENTS SEQUENCE, or ITEM
Choose from:
    5       HF PREV POSITIVE TEST FOR HEP C DONE ELSEWHERE
   10       HF RISK FACTOR FOR HEPATITIS C OTHER
   15       HF NO RISK FACTORS FOR HEP C OTHER
   20       HF DECLINED HEP C RISK ASSESSMENT REFUSED


    You may enter a new COMPONENTS, if you wish
    Type a Number between .1 and 999.9, 1 Decimal Digit
Select SEQUENCE: 20// @
   SURE YOU WANT TO DELETE THE ENTIRE '20' SEQUENCE? y  (Yes)
Select SEQUENCE: 15// @
   SURE YOU WANT TO DELETE THE ENTIRE '15' SEQUENCE? y  (Yes)
Select SEQUENCE: 10// @
   SURE YOU WANT TO DELETE THE ENTIRE '10' SEQUENCE? y  (Yes)
Select SEQUENCE: 5//<Enter>
  SEQUENCE: 5//<Enter>
  DIALOG ELEMENT/GROUP: HF PREV POSITIVE TEST FOR HEP C DONE ELSEWHERE
        // GPZ HEPATITIS C HEALTH FACTORS GROUP       dialog group
        ...OK? Yes// <Enter>  (Yes)
Select SEQUENCE: <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog Edit List              Jul 24, 2000 16:18:20       Page:    1 of    1
REMINDER DIALOG NAME: HEP C RISK ASSESSMENT (V1.5)
 Sequence        Dialog Text
   5             HEPATITIS C HEALTH FACTORS
                 [no caption for this group]
   5.1           1. PATIENT HAS RISK FACTOR(S) FOR HEPATITIS C.

   5.2           2. PATIENT HAS NO RISK FACTORS FOR HEPATITIS C.

   5.3           3. PATIENT DECLINED HEPATITIS C RISK ASSESSMENT.
                    Comment:

   5.4           4. PATIENT HAD OUTSIDE PREVIOUS POSITIVE TEST FOR HEPATITS C.
                    Date:
                    Location:
                    Comment:


          + Next Screen    - Prev Screen   ?? More Actions              >>>
CO    Copy Dialog          DT    Dialog Text        RI   Reminder Inquiry
DD    Detailed Display     ED    Edit/Delete Dialog QU   Quit
DP    Progress Note Text   INQ  Inquiry/Print
Select Sequence: Quit//<Enter>
```

6. You could stop at this point and you would have a very nice reminder dialog for the Hep
C Risk Assessment that would meet all the national requirements for what your facility
needs to record. I decided to go a step further and create local elements for the ten risk
factors items. You could also use local prompts instead of elements. The main
difference in the two is that elements display up and down in a list while prompts
display side-by-side.

Next I made another local dialog group with the ten risk factor elements called "GPZ
HEP C RISK GROUP." Then I placed this group as a subgroup under the" GPZ
HEPATITIS C HEALTH FACTORS GROUP." This way, once they check that the
patient has risks, another dialog box opens up and lets them check which of the risk
factor elements applies to the patient.

```
Select Dialog Management Option:  Reminder Dialogs

Dialog List                   Jul 24, 2000 16:31:09       Page:    1 of    6
REMINDER VIEW (ALL REMINDERS BY NAME)

 Item Reminder Name                      Linked Dialog Name & Dialog Status
    1  ALCOHOL USE SCREEN (V)
    2  BREAST CANCER SCREEN
    3  CERVICAL CANCER SCREEN
    4  CERVICAL CANCER SCREEN (L)
    5  CHOLESTEROL SCREEN (F)
    6  CHOLESTEROL SCREEN (M)
    7  COLORECTAL CANCER SCREEN (FOBT)
    8  COLORECTAL CANCER SCREEN (SIG.)
    9  DEMENTIA YEARLY EVALUATION
   10  DIGITAL RECTAL (PROSTATE) EXAM (V)
   11  DISEASE NUTRITION/EXERCISE ED.
   12  DM PEDAL PULSES EXAM (V)
```

```
    13  DM SENSORY FOOT EXAM (V)
    14  DM VISUAL FOOT INSPECTION (V)
    15  FLEXISIGMOIDOSCOPY
    16  HEMOGLOBIN A1C (V)
+           Enter ?? for more actions                                  >>>
AR   All reminders        LR   Linked Reminders      QU   Quit
CV   Change View          RN   Name/Print Name
Select Item: Next Screen// CV  Change View



       Select one of the following:


            D            Reminder Dialogs
            E            Dialog Elements
            F            Forced Values
            G            Dialog Groups
            P            Additional Prompts
            R            Reminders
            RG           Result Group (Mental Health)
            RE           Result Element (Mental Health)


TYPE OF VIEW: R// E  Dialog Elements
```

```
Dialog List                  Jul 24, 2000 16:31:15        Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)

 Item Dialog Name                              Dialog type         Status
    1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
    2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
    3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
    4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
    5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
    6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
    7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
    8  HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
    9  TX HEP C CODES                          Dialog Element



           + Next Screen   - Prev Screen   ?? More Actions          >>>
AD   Add                 CV   Change View          INQ  Inquiry/Print
CO   Copy Dialog         PT   List/Print All       QU   Quit
Select Item: Quit// AD   Add

Select DIALOG to add: PXZ BLOOD EXPOSURE RISK
  Are you adding 'PXZ BLOOD EXPOSURE RISK' as
    a new REMINDER DIALOG (the 53RD)? No// Y  (Yes)


Not used by any other dialog

NAME: PXZ BLOOD EXPOSURE RISK  Replace <Enter>
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: <Enter>
DIALOG/PROGRESS NOTE TEXT: <Enter>
  No existing text
  Edit? NO// YES


==[ WRAP ]==[ INSERT ]======< DIALOG/PROGRESS NOTE TEXT >====[ <PF1>H=Help ]=
Patient had blood exposure on or through skin or mucous membrane.
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
<=======T=======T=======T=======T=======T=======T=======T=======T======

ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO//<Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: <Enter>
Select DIALOG to add: <Enter>
```

```
Dialog List                   Jul 24, 2000 16:35:32        Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)


 Item Dialog Name                              Dialog type           Status
    1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
    2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
    3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
    4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
    5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
    6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
    7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
    8  HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
    9  PXZ BLOOD EXPOSURE RISK                 Dialog Element
   10  TX HEP C CODES                          Dialog Element



          + Next Screen    - Prev Screen   ?? More Actions              >>>
AD   Add                   CV   Change View       INQ  Inquiry/Print
CO   Copy Dialog           PT   List/Print All     QU   Quit
Select Item: Quit// AD   Add

Select DIALOG to add: PXZ BLOOD TRANSFUSION RISK
  Are you adding 'PXZ BLOOD TRANSFUSION RISK' as
    a new REMINDER DIALOG (the 54TH)? No// Y  (Yes)


Not used by any other dialog

NAME: PXZ BLOOD TRANSFUSION RISK  Replace<Enter>
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: <Enter>
DIALOG/PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// YES
==[ WRAP ]==[ INSERT ]======< DIALOG/PROGRESS NOTE TEXT >====[ <PF1>H=Help ]=
Patient received transfusion of blood or blood products prior to 1992.
<=======T=======T=======T=======T=======T=======T=======T=======T=======T
ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO//<Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: <Enter>
Select DIALOG to add: <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                    Jul 24, 2000 16:36:27        Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)

 Item Dialog Name                               Dialog type          Status
    1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
    2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
    3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
    4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
    5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
    6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
    7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
    8  HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
    9  PXZ BLOOD EXPOSURE RISK                 Dialog Element
   10  PXZ BLOOD TRANSFUSION RISK              Dialog Element
   11  TX HEP C CODES                          Dialog Element


           + Next Screen   - Prev Screen   ?? More Actions              >>>
AD   Add                   CV    Change View          INQ  Inquiry/Print
CO   Copy Dialog           PT    List/Print All        QU   Quit
Select Item: Quit// AD   Add

Select DIALOG to add: PXZ HEMODIALYSIS RISK
  Are you adding 'PXZ HEMODIALYSIS RISK' as
    a new REMINDER DIALOG (the 55TH)? No// Y  (Yes)


Not used by any other dialog

NAME: PXZ HEMODIALYSIS RISK  Replace<Enter>
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: <Enter>
DIALOG/PROGRESS NOTE TEXT: <Enter>
  No existing text
  Edit? NO// YES

==[ WRAP ]==[ INSERT ]======< DIALOG/PROGRESS NOTE TEXT >====[ <PF1>H=Help ]==
Patient is on hemodialysis.


<=======T=======T=======T=======T=======T=======T=======T=======T=======

ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO//<Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: <Enter>
Select DIALOG to add: <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                     Jul 24, 2000 16:37:24        Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)

 Item Dialog Name                                Dialog type            Status
    1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
    2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
    3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
    4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
    5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
    6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
    7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
    8  HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
    9  PXZ BLOOD EXPOSURE RISK                 Dialog Element
   10  PXZ BLOOD TRANSFUSION RISK              Dialog Element
   11  PXZ HEMODIALYSIS RISK                   Dialog Element
   12  TX HEP C CODES                          Dialog Element


          + Next Screen   - Prev Screen   ?? More Actions                >>>
AD   Add                  CV   Change View         INQ  Inquiry/Print
CO   Copy Dialog          PT   List/Print All       QU   Quit
Select Item: Quit// AD   Add


Select DIALOG to add: PXZ INJECTION DRUG USE RISK
  Are you adding 'PXZ INJECTION DRUG USE RISK' as
    a new REMINDER DIALOG (the 56TH)? No// Y  (Yes)


Not used by any other dialog

NAME: PXZ INJECTION DRUG USE RISK  Replace<Enter>
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: <Enter>
DIALOG/PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// YES


==[ WRAP ]==[ INSERT ]======< DIALOG/PROGRESS NOTE TEXT >====[ <PF1>H=Help ]=
Patient has history of injection illicit drug use.


<=======T=======T=======T=======T=======T=======T=======T=======T=======T


ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO//<Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: <Enter>
Select DIALOG to add: <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                     Jul 24, 2000 16:38:09        Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)


 Item Dialog Name                               Dialog type          Status
   1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
   2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
   3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
   4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
   5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
   6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
   7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
   8  HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
   9  PXZ BLOOD EXPOSURE RISK                 Dialog Element
  10  PXZ BLOOD TRANSFUSION RISK              Dialog Element
  11  PXZ HEMODIALYSIS RISK                   Dialog Element
  12  PXZ INJECTION DRUG USE RISK             Dialog Element
  13  TX HEP C CODES                          Dialog Element



          + Next Screen   - Prev Screen   ?? More Actions              >>>
AD   Add                    CV   Change View        INQ  Inquiry/Print
CO   Copy Dialog            PT   List/Print All      QU  Quit
Select Item: Quit// AD     Add

Select DIALOG to add: PXZ INTEMPERATE ALCOHOL USE RISK
  Are you adding 'PXZ INTEMPERATE ALCOHOL USE RISK' as
    a new REMINDER DIALOG (the 57TH)? No// Y  (Yes)


Not used by any other dialog

NAME: PXZ INTEMPERATE ALCOHOL USE RISK  Replace<Enter>
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: <Enter>
DIALOG/PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// YES

==[ WRAP ]==[ INSERT ]======< DIALOG/PROGRESS NOTE TEXT >=====[ <PF1>H=Help ]==
Patient has history of intemperate alcohol use.


<=======T=======T=======T=======T=======T=======T=======T=======T=======T

ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO//<Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: <Enter>
Select DIALOG to add: <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                  Jul 24, 2000 16:38:56         Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)


 Item Dialog Name                             Dialog type          Status
   1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
   2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
   3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
   4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
   5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
   6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
   7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
   8  HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
   9  PXZ BLOOD EXPOSURE RISK                 Dialog Element
  10  PXZ BLOOD TRANSFUSION RISK              Dialog Element
  11  PXZ HEMODIALYSIS RISK                   Dialog Element
  12  PXZ INJECTION DRUG USE RISK             Dialog Element
  13  PXZ INTEMPERATE ALCOHOL USE RISK        Dialog Element
  14  TX HEP C CODES                          Dialog Element



          + Next Screen   - Prev Screen   ?? More Actions            >>>
AD   Add                  CV   Change View      INQ  Inquiry/Print
CO   Copy Dialog          PT   List/Print All   QU   Quit
Select Item: Quit// AD   Add


Select DIALOG to add: PXZ INTRANASAL COCAINE USE RISK
  Are you adding 'PXZ INTRANASAL COCAINE USE RISK' as
    a new REMINDER DIALOG (the 58TH)? No// Y  (Yes)


Not used by any other dialog

NAME: PXZ INTRANASAL COCAINE USE RISK  Replace<Enter>
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: <Enter>
DIALOG/PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// YES


==[ WRAP ]==[ INSERT ]======< DIALOG/PROGRESS NOTE TEXT >====[ <PF1>H=Help ]==
Patient has history of intranasal cocaine use.


<=======T=======T=======T=======T=======T=======T=======T=======T=======T

ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO//<Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: <Enter>
Select DIALOG to add: <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                     Jul 24, 2000 16:39:38        Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)


 Item Dialog Name                             Dialog type            Status
   1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
   2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
   3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
   4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
   5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
   6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
   7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
   8  HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
   9  PXZ BLOOD EXPOSURE RISK                 Dialog Element
  10  PXZ BLOOD TRANSFUSION RISK              Dialog Element
  11  PXZ HEMODIALYSIS RISK                   Dialog Element
  12  PXZ INJECTION DRUG USE RISK             Dialog Element
  13  PXZ INTEMPERATE ALCOHOL USE RISK        Dialog Element
  14  PXZ INTRANASAL COCAINE USE RISK         Dialog Element
  15  TX HEP C CODES                          Dialog Element
          + Next Screen    - Prev Screen   ?? More Actions              >>>
AD   Add                   CV    Change View      INQ  Inquiry/Print
CO   Copy Dialog           PT    List/Print All   QU   Quit
Select Item: Quit// AD    Add


Select DIALOG to add: PXZ MULTIPLE SEX PARTNERS RISK
  Are you adding 'PXZ MULTIPLE SEX PARTNERS RISK' as
    a new REMINDER DIALOG (the 59TH)? No// Y  (Yes)


Not used by any other dialog

NAME: PXZ MULTIPLE SEX PARTNERS RISK  Replace<Enter>
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: <Enter>
DIALOG/PROGRESS NOTE TEXT: <Enter>
  No existing text
  Edit? NO// YES

==[ WRAP ]==[ INSERT ]======< DIALOG/PROGRESS NOTE TEXT >=====[ <PF1>H=Help ]==
Patient has had multiple sexual partners.


<=======T=======T=======T=======T=======T=======T=======T=======T=======T

ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO//<Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: <Enter>
Select DIALOG to add: <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                    Jul 24, 2000 16:40:24          Page:    1 of    1
DIALOG VIEW (DIALOG ELEMENTS)


 Item Dialog Name                              Dialog type            Status
   1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
   2  HF NO RISK FACTORS FOR HEP C OTHER       Dialog Element
   3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
   4  HF RISK FACTOR FOR HEPATITIS C OTHER     Dialog Element
   5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
   6  HFZ NO RISK FACTORS FOR HEP C OTHER      Dialog Element
   7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
   8  HFZ RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
   9  PXZ BLOOD EXPOSURE RISK                  Dialog Element
  10  PXZ BLOOD TRANSFUSION RISK               Dialog Element
  11  PXZ HEMODIALYSIS RISK                    Dialog Element
  12  PXZ INJECTION DRUG USE RISK              Dialog Element
  13  PXZ INTEMPERATE ALCOHOL USE RISK         Dialog Element
  14  PXZ INTRANASAL COCAINE USE RISK          Dialog Element
  15  PXZ MULTIPLE SEX PARTNERS RISK           Dialog Element
  16  TX HEP C CODES                           Dialog Element
           + Next Screen   - Prev Screen   ?? More Actions              >>>
AD   Add                  CV    Change View       INQ  Inquiry/Print
CO   Copy Dialog          PT    List/Print All    QU   Quit
Select Item: Quit// AD   Add


Select DIALOG to add: PXZ TATTOO/BODY PIERCING RISK
  Are you adding 'PXZ TATTOO/BODY PIERCING RISK' as
    a new REMINDER DIALOG (the 60TH)? No// Y  (Yes)


Not used by any other dialog

NAME: PXZ TATTOO/BODY PIERCING RISK  Replace<Enter>
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: <Enter>
DIALOG/PROGRESS NOTE TEXT: <Enter>
  No existing text
  Edit? NO// YES


==[ WRAP ]==[ INSERT ]======< DIALOG/PROGRESS NOTE TEXT >====[ <PF1>H=Help ]=
Patient has a tattoo or repeated body piercing.


<=======T=======T=======T=======T=======T=======T=======T=======T=======T

ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO//<Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: <Enter>
Select DIALOG to add: <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                    Jul 24, 2000 16:41:16         Page:    1 of    2
DIALOG VIEW (DIALOG ELEMENTS)


 Item Dialog Name                            Dialog type           Status
    1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
    2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
    3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
    4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
    5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
    6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
    7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
    8  HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
    9  PXZ BLOOD EXPOSURE RISK                 Dialog Element
   10  PXZ BLOOD TRANSFUSION RISK              Dialog Element
   11  PXZ HEMODIALYSIS RISK                   Dialog Element
   12  PXZ INJECTION DRUG USE RISK             Dialog Element
   13  PXZ INTEMPERATE ALCOHOL USE RISK        Dialog Element
   14  PXZ INTRANASAL COCAINE USE RISK         Dialog Element
   15  PXZ MULTIPLE SEX PARTNERS RISK          Dialog Element
   16  PXZ TATTOO/BODY PIERCING RISK           Dialog Element
           + Next Screen    - Prev Screen   ?? More Actions            >>>
AD   Add                    CV   Change View        INQ  Inquiry/Print
CO   Copy Dialog            PT   List/Print All      QU   Quit
Select Item: Next Screen// AD   Add


Select DIALOG to add: PXZ UNEXPLAINED ABD ALT VALUE RISK
  Are you adding 'PXZ UNEXPLAINED ABD ALT VALUE RISK' as
    a new REMINDER DIALOG (the 61ST)? No// Y  (Yes)


Not used by any other dialog

NAME: PXZ UNEXPLAINED ABD ALT VALUE RISK  Replace<Enter>
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: <Enter>
DIALOG/PROGRESS NOTE TEXT: <Enter>
  No existing text
  Edit? NO// YES


==[ WRAP ]==[ INSERT ]======< DIALOG/PROGRESS NOTE TEXT >====[ <PF1>H=Help ]=
Patient has unexplained abnormal ALT value.


<=======T=======T=======T=======T=======T=======T=======T=======T=======T

ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO//<Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: <Enter>
Select DIALOG to add: <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                    Jul 24, 2000 16:42:24        Page:    1 of    2
DIALOG VIEW (DIALOG ELEMENTS)


 Item Dialog Name                              Dialog type           Status
    1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
    2  HF NO RISK FACTORS FOR HEP C OTHER       Dialog Element
    3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
    4  HF RISK FACTOR FOR HEPATITIS C OTHER     Dialog Element
    5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
    6  HFZ NO RISK FACTORS FOR HEP C OTHER      Dialog Element
    7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
    8  HFZ RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
    9  PXZ BLOOD EXPOSURE RISK                  Dialog Element
   10  PXZ BLOOD TRANSFUSION RISK               Dialog Element
   11  PXZ HEMODIALYSIS RISK                    Dialog Element
   12  PXZ INJECTION DRUG USE RISK              Dialog Element
   13  PXZ INTEMPERATE ALCOHOL USE RISK         Dialog Element
   14  PXZ INTRANASAL COCAINE USE RISK          Dialog Element
   15  PXZ MULTIPLE SEX PARTNERS RISK           Dialog Element
   16  PXZ TATTOO/BODY PIERCING RISK            Dialog Element
+            + Next Screen   - Prev Screen   ?? More Actions             >>>
AD   Add                  CV   Change View        INQ  Inquiry/Print
CO   Copy Dialog          PT   List/Print All      QU  Quit
Select Item: Next Screen// AD   Add


Select DIALOG to add: PXZ UNEXPLAINED LIVER DIS RISK
  Are you adding 'PXZ UNEXPLAINED LIVER DIS RISK' as
    a new REMINDER DIALOG (the 62ND)? No// Y  (Yes)


Not used by any other dialog

NAME: PXZ UNEXPLAINED LIVER DIS RISK  Replace<Enter>
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: <Enter>
DIALOG/PROGRESS NOTE TEXT: <Enter>
  No existing text
  Edit? NO// YES


==[ WRAP ]==[ INSERT ]======< DIALOG/PROGRESS NOTE TEXT >=====[ <PF1>H=Help ]=
Patient has unexplained liver disease.


<=======T=======T=======T=======T=======T=======T=======T=======T=======T



ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO//<Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: <Enter>
Select DIALOG to add: <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List              Jul 24, 2000 16:43:33      Page:   1 of   2
DIALOG VIEW (DIALOG ELEMENTS)


+Item Dialog Name                           Dialog type          Status

   1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
   2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
   3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
   1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
   2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
   3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
   4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
   5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
   6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
   7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
   8  HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
   9  PXZ BLOOD EXPOSURE RISK                 Dialog Element
  10  PXZ BLOOD TRANSFUSION RISK              Dialog Element
  11  PXZ HEMODIALYSIS RISK                   Dialog Element
  12  PXZ INJECTION DRUG USE RISK             Dialog Element
  13  PXZ INTEMPERATE ALCOHOL USE RISK        Dialog Element
  14  PXZ INTRANASAL COCAINE USE RISK         Dialog Element
  15  PXZ MULTIPLE SEX PARTNERS RISK          Dialog Element
  16  PXZ TATTOO/BODY PIERCING RISK           Dialog Element
```

```
Dialog List              Jul 24, 2000 16:43:33      Page:   2 of   2
DIALOG VIEW (DIALOG ELEMENTS)


+Item Dialog Name                           Dialog type          Status
  17  PXZ UNEXPLAINED ABD ALT VALUE RISK      Dialog Element
  18  PXZ UNEXPLAINED LIVER DIS RISK          Dialog Element
  19  TX HEP C CODES                          Dialog Element




         + Next Screen   - Prev Screen   ?? More Actions              >>>
AD   Add                  CV    Change View        INQ  Inquiry/Print
CO   Copy Dialog          PT    List/Print All      QU   Quit
Select Item: Quit// CV   Change View


     Select one of the following:


          D          Reminder Dialogs
          E          Dialog Elements
          F          Forced Values
          G          Dialog Groups
          P          Additional Prompts
          R          Reminders
          RG         Result Group (Mental Health)
          RE         Result Element (Mental Health)

TYPE OF VIEW: R// G  Dialog Groups
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                   Jul 24, 2000 16:56:19        Page:    1 of    1
DIALOG VIEW (DIALOG GROUPS)


 Item Dialog Name                            Dialog type           Status
   1  GPZ HEPATITIS C HEALTH FACTORS GROUP    Dialog Group



          + Next Screen   - Prev Screen   ?? More Actions              >>>
AD   Add                   CV   Change View         INQ  Inquiry/Print
CO   Copy Dialog           PT   List/Print All       QU   Quit
Select Item: Quit// AD   Add

Select DIALOG to add: GPZ HEP C RISK GROUP
  Are you adding 'GPZ HEP C RISK GROUP' as
    a new REMINDER DIALOG (the 63RD)? No// Y  (Yes)


 Not used by any other dialog

NAME: GPZ HEP C RISK GROUP  Replace <Enter>
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: ?
     Enter the finding item for this dialog element.
     Enter one of the following:
       ED.EntryName to select a EDUCATION TOPICS
       IM.EntryName to select a IMMUNIZATION
       ST.EntryName to select a SKIN TEST
       EX.EntryName to select a EXAM
       HF.EntryName to select a HEALTH FACTOR
       CPT.EntryName to select a PROCEDURE
       ICD9.EntryName to select a ICD9 DIAGNOSIS
       VM.EntryName to select a VITAL TYPE
       TX.EntryName to select a TAXONOMY
       Q.EntryName to select a ORDER DIALOG
       MH.EntryName to select a MENTAL HEALTH

FINDING ITEM: HF.RISK  RISK FACTOR FOR HEPATITIS C
        ...OK? Yes// <Enter>  (Yes)        (THIS MAKES ANY OF THE ITEMS GIVE THE
PATIENT THIS HF)
GROUP CAPTION: Risk Factor(s) for Hepatitis C
PUT A BOX AROUND THE GROUP: ?
     Enter Y to add a box around the components.
     Choose from:
       Y         YES
       N         NO
PUT A BOX AROUND THE GROUP: Y  YES
SHARE COMMON PROMPTS:
MULTIPLE SELECTION: ?
     Enter 1 for one selection only. Enter 2 for one or more. Enter 0 for no
     selection required.
     Choose from:
       1         ONE SELECTION ONLY
       2         ONE OR MORE SELECTIONS
       0         NO SELECTION REQUIRED
MULTIPLE SELECTION: 0  NO SELECTION REQUIRED
HIDE/SHOW GROUP: ?
     Enter HIDE or SHOW
     Choose from:
       1         HIDE
       0         SHOW
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
HIDE/SHOW GROUP: 1  HIDE
GROUP HEADER DIALOG TEXT:
  No existing text
  Edit? NO// YES


==[ WRAP ]==[ INSERT ]======< GROUP HEADER DIALOG TEXT >=====[ <PF1>H=Help ]==
1. PATIENT HAS RISK FACTOR(s) FOR HEPATITIS C.


<=======T=======T=======T=======T=======T=======T=======T=======T=======T

GROUP HEADER ALTERNATE P/N TEXT:
  No existing text
  Edit? NO// YES


==[ WRAP ]==[ INSERT ]===< GROUP HEADER ALTERNATE P/N TEX >==[ <PF1>H=Help ]==
Patient has Risk Factor(s) for Hepatitis C:


<=======T=======T=======T=======T=======T=======T=======T=======T=======T

EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
NUMBER OF INDENTS: ?
     Enter the number of indents required (between 0 and 4).
NUMBER OF INDENTS: 2
INDENT PROGRESS NOTE TEXT: ?
     Enter 1 if the progress note text should be indented. Enter 0 if no indent
     is required.
     Choose from:
       1        INDENT
       0        NO INDENT
INDENT PROGRESS NOTE TEXT: 1  INDENT
Select ADDITIONAL FINDINGS:
Select SEQUENCE: 1
  DIALOG ELEMENT: PXZ BLOOD TRANSFUSION RISK      dialog element
        ...OK? Yes// <Enter>  (Yes)

Select SEQUENCE: 2
  DIALOG ELEMENT: PXZ INJECTION DRUG USE RISK      dialog element
        ...OK? Yes// <Enter>  (Yes)

Select SEQUENCE: 3
  DIALOG ELEMENT: PXZ BLOOD EXPOSURE RISK      dialog element
        ...OK? Yes// <Enter>  (Yes)

Select SEQUENCE: 4
  DIALOG ELEMENT: PXZ MULTIPLE SEX PARTNERS RISK      dialog element
        ...OK? Yes// <Enter>  (Yes)

Select SEQUENCE: 5
  DIALOG ELEMENT: PXZ HEMODIALYSIS RISK      dialog element
        ...OK? Yes// <Enter>  (Yes)

Select SEQUENCE: 6
  DIALOG ELEMENT: PXZ TATTOO/BODY PIERCING RISK      dialog element
        ...OK? Yes// <Enter>  (Yes)

Select SEQUENCE: 7
  DIALOG ELEMENT: PXZ INTRANASAL COCAINE USE RISK      dialog element
        ...OK? Yes// <Enter>  (Yes)
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Select SEQUENCE: 8
  DIALOG ELEMENT: PXZ UNEXPLAINED LIVER DIS RISK        dialog element
        ...OK? Yes//<Enter>   (Yes)

Select SEQUENCE: 9
  DIALOG ELEMENT: PXZ UNEXPLAINED ABD ALT VALUE RISK       dialog element
        ...OK? Yes//<Enter>   (Yes)

Select SEQUENCE: 10
  DIALOG ELEMENT: PXZ INTEMPERATE ALCOHOL USE RISK       dialog element
        ...OK? Yes//<Enter>   (Yes)

Select SEQUENCE: <Enter>
```

```
Dialog List                   Jul 24, 2000 17:43:35         Page:    1 of    1
DIALOG VIEW (DIALOG GROUPS)


 Item Dialog Name                            Dialog type              Status
    1  GPZ HEP C RISK GROUP                  Dialog Group
    2  GPZ HEPATITIS C HEALTH FACTORS GROUP  Dialog Group



          Enter ?? for more actions                                      >>>
AD   Add                  CV    Change View         INQ  Inquiry/Print
CO   Copy Dialog          PT    List/Print All      QU   Quit
Select Item: Quit// 1
Dialog Name:  GPZ HEP C RISK GROUP


Not used by any other dialog


NAME: GPZ HEP C RISK GROUP  Replace <Enter>
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: RISK FACTOR FOR HEPATITIS C//<Enter>
GROUP CAPTION: Risk Factor(s) for Hepatitis C  Replace<Enter>
PUT A BOX AROUND THE GROUP: YES//<Enter>
SHARE COMMON PROMPTS: <Enter>
MULTIPLE SELECTION: NO SELECTION REQUIRED//<Enter>
HIDE/SHOW GROUP: HIDE//<Enter>
GROUP HEADER DIALOG TEXT:
1. PATIENT HAS RISK FACTOR(s) FOR HEPATITIS C.

  Edit? NO//<Enter>
GROUP HEADER ALTERNATE P/N TEXT:
Patient has Risk Factor(s) for Hepatitis C:

  Edit? NO//<Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
NUMBER OF INDENTS: 2//<Enter>
INDENT PROGRESS NOTE TEXT: INDENT//<Enter>
Select ADDITIONAL FINDINGS: <Enter>
Select SEQUENCE: 10// ?
 Answer with COMPONENTS SEQUENCE, or ITEM
Choose from:
    1       PXZ BLOOD TRANSFUSION RISK
    2       PXZ INJECTION DRUG USE RISK
    3       PXZ BLOOD EXPOSURE RISK
    4       PXZ MULTIPLE SEX PARTNERS RISK
    5       PXZ HEMODIALYSIS RISK
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
    6       PXZ TATTOO/BODY PIERCING RISK
    7       PXZ INTRANASAL COCAINE USE RISK
    8       PXZ UNEXPLAINED LIVER DIS RISK
    9       PXZ UNEXPLAINED ABD ALT VALUE RISK
    10      PXZ INTEMPERATE ALCOHOL USE RISK

    You may enter a new COMPONENTS, if you wish
    Type a Number between .1 and 999.9, 1 Decimal Digit
Select SEQUENCE: 10//<Enter>
Select SEQUENCE: <Enter>
```

```
Dialog List                    Jul 24, 2000 17:47:30        Page:    1 of    1
DIALOG VIEW (DIALOG GROUPS)


 Item Dialog Name                            Dialog type           Status
    1  GPZ HEP C RISK GROUP                  Dialog Group
    2  GPZ HEPATITIS C HEALTH FACTORS GROUP  Dialog Group




          Enter ?? for more actions                                      >>>
AD    Add                  CV    Change View       INQ   Inquiry/Print
CO    Copy Dialog          PT    List/Print All     QU    Quit
Select Item: Quit// 2
Dialog Name:  GPZ HEPATITIS C HEALTH FACTORS GROUP


CURRENT DIALOG ELEMENT/GROUP NAME: GPZ HEPATITIS C HEALTH FACTORS GROUP
Used by:  HEP C RISK ASSESSMENT (V1.5) (Reminder Dialog)


DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: <Enter>
GROUP CAPTION: <Enter>
PUT A BOX AROUND THE GROUP: YES//<Enter>
SHARE COMMON PROMPTS: <Enter>
MULTIPLE SELECTION: ONE SELECTION ONLY//<Enter>
HIDE/SHOW GROUP: SHOW//<Enter>
GROUP HEADER DIALOG TEXT:
HEPATITIS C HEALTH FACTORS

  Edit? NO//<Enter>
GROUP HEADER ALTERNATE P/N TEXT:
  No existing text
  Edit? NO//<Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: SUPPRESS//<Enter>
NUMBER OF INDENTS: 1//<Enter>
INDENT PROGRESS NOTE TEXT: INDENT//<Enter>
Select ADDITIONAL FINDINGS: <Enter>
Select SEQUENCE: 4// ?
 Answer with COMPONENTS SEQUENCE, or ITEM
Choose from:
    1       HFZ RISK FACTOR FOR HEPATITIS C OTHER
    2       HFZ NO RISK FACTORS FOR HEP C OTHER
    3       HFZ DECLINED HEP C RISK ASSESSMENT REFUSED
    4       HFZ PREV POSITIVE TEST FOR HEP C DONE ELSEWHERE

    You may enter a new COMPONENTS, if you wish
    Type a Number between .1 and 999.9, 1 Decimal Digit
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Select SEQUENCE: 4// 1     HFZ RISK FACTOR FOR HEPATITIS C OTHER
  SEQUENCE: 1//<Enter>
  DIALOG ELEMENT: HFZ RISK FACTOR FOR HEPATITIS C OTHER
        // GPZ HEP C RISK GROUP        dialog group
        ...OK? Yes// <Enter>  (Yes)

Select SEQUENCE: ?
 Answer with COMPONENTS SEQUENCE, or ITEM
Choose from:
    1      GPZ HEP C RISK GROUP
    2      HFZ NO RISK FACTORS FOR HEP C OTHER
    3      HFZ DECLINED HEP C RISK ASSESSMENT REFUSED
    4      HFZ PREV POSITIVE TEST FOR HEP C DONE ELSEWHERE

    You may enter a new COMPONENTS, if you wish
    Type a Number between .1 and 999.9, 1 Decimal Digit
Select SEQUENCE: <Enter>
```

```
Dialog List                     Jul 24, 2000 18:07:40        Page:    1 of    1
DIALOG VIEW (DIALOG GROUPS)


 Item Dialog Name                            Dialog type           Status
   1  GPZ HEP C RISK GROUP                   Dialog Group
   2  GPZ HEPATITIS C HEALTH FACTORS GROUP   Dialog Group



          Enter ?? for more actions                                       >>>
AD   Add                  CV    Change View       INQ  Inquiry/Print
CO   Copy Dialog          PT    List/Print All     QU   Quit
Select Item: Quit//

Select Item: Next Screen// CV   Change View


     Select one of the following:

          D          Reminder Dialogs
          E          Dialog Elements
          F          Forced Values
          G          Dialog Groups
          P          Additional Prompts
          R          Reminders
          RG         Result Group (Mental Health)
          RE         Result Element (Mental Health)
 TYPE OF VIEW: R// D  Reminder Dialogs
```

```
Dialog List                     Jul 24, 2000 18:05:38        Page:    1 of    1
DIALOG VIEW (REMINDER DIALOGS - SOURCE REMINDER NAME)


 Item Reminder Dialog Name                   Source Reminder        Status
   1  HEP C RISK ASSESSMENT (V1.5)           HEP C RISK ASSESSMENT (V1 Linked




        + Next Screen   - Prev Screen   ?? More Actions                   >>>
AD   Add Reminder Dialog  PT    List/Print All     QU    Quit
CV   Change View          RN    Name/Print Name
Select Item: Quit// 1
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog Edit List           Jul 24, 2000 18:05:40      Page:    1 of    1
REMINDER DIALOG NAME: HEP C RISK ASSESSMENT (V1.5)
 Sequence       Dialog Text
   5            HEPATITIS C HEALTH FACTORS
                [no caption for this group]
   5.1          1. PATIENT HAS RISK FACTOR(s) FOR HEPATITIS C.

   5.2          2. PATIENT HAS NO RISK FACTORS FOR HEPATITIS C.

   5.3          3. PATIENT DECLINED HEPATITIS C RISK ASSESSMENT.
                   Comment:

   5.4          4. PATIENT HAD OUTSIDE PREVIOUS POSITIVE TEST FOR HEPATITS C.
                   Date:
                   Location:
                   Comment:


          + Next Screen   - Prev Screen   ?? More Actions            >>>
CO    Copy Dialog          DT    Dialog Text          RI    Reminder Inquiry
DD    Detailed Display     ED    Edit/Delete Dialog   QU    Quit
DP    Progress Note Text   INQ   Inquiry/Print
Select Sequence: Quit//
```

7. The only other item you might want to add to your dialog is a CPRS Quick Order for the Hepatitis C lab test. That way, once clinicians have answered the Risk Assessment, they can go ahead and order the test if the patient needs it.

```
Dialog List                Jul 24, 2000 18:15:22      Page:    1 of    1
DIALOG VIEW (REMINDER DIALOGS - SOURCE REMINDER NAME)


 Item Reminder Dialog Name                  Source Reminder          Status
   1  HEP C RISK ASSESSMENT (V1.5)          HEP C RISK ASSESSMENT (V1 Linked




          Enter ?? for more actions                                  >>>
AD    Add Reminder Dialog  PT    List/Print All       QU    Quit
CV    Change View          RN    Name/Print Name
Select Item: Quit// CV    Change View

      Select one of the following:

          D           Reminder Dialogs
          E           Dialog Elements
          F           Forced Values
          G           Dialog Groups
          P           Additional Prompts
          R           Reminders
          RG          Result Group (Mental Health)
          RE          Result Element (Mental Health)

TYPE OF VIEW: R// E  Dialog Elements
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                      Jul 24, 2000 18:15:26        Page:    1 of    2
DIALOG VIEW (DIALOG ELEMENTS)


 Item Dialog Name                               Dialog type            Status
   1   HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
   2   HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
   3   HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
   4   HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
   5   HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
   6   HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
   7   HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
   8   HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
   9   PXZ BLOOD EXPOSURE RISK                 Dialog Element
  10   PXZ BLOOD TRANSFUSION RISK              Dialog Element
  11   PXZ HEMODIALYSIS RISK                   Dialog Element
  12   PXZ INJECTION DRUG USE RISK             Dialog Element
  13   PXZ INTEMPERATE ALCOHOL USE RISK        Dialog Element
  14   PXZ INTRANASAL COCAINE USE RISK         Dialog Element
  15   PXZ MULTIPLE SEX PARTNERS RISK          Dialog Element
  16   PXZ TATTOO/BODY PIERCING RISK           Dialog Element
          + Next Screen   - Prev Screen   ?? More Actions                >>>
AD   Add                  CV   Change View       INQ  Inquiry/Print
CO   Copy Dialog          PT   List/Print All     QU  Quit
Select Item: Next Screen// AD   Add


Select DIALOG to add: LRZ HEPATITIS C ANTIBDOY TEST
  Are you adding 'LRZ HEPATITIS C ANTIBDOY TEST' as
    a new REMINDER DIALOG (the 64TH)? No// Y  (Yes)


Not used by any other dialog

NAME: LRZ HEPATITIS C ANTIBDOY TEST  Replace <Enter>
DISABLE: <Enter>
RESOLUTION TYPE: ORDERED
FINDING ITEM: ?
     Enter the finding item for this dialog element.
     Enter one of the following:
       ED.EntryName to select a EDUCATION TOPICS
       IM.EntryName to select a IMMUNIZATION
       ST.EntryName to select a SKIN TEST
       EX.EntryName to select a EXAM
       HF.EntryName to select a HEALTH FACTOR
       CPT.EntryName to select a PROCEDURE
       ICD9.EntryName to select a ICD9 DIAGNOSIS
       VM.EntryName to select a VITAL TYPE
       TX.EntryName to select a TAXONOMY
       Q.EntryName to select a ORDER DIALOG
       MH.EntryName to select a MENTAL HEALTH

     To see the entries in any particular file type <Prefix.?>

FINDING ITEM: Q.LRT HEP C  LRT HEP C ANTIBODY SERUM GOLD-GEL
       ...OK? Yes// <Enter>  (Yes)
DIALOG/PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// YES

==[ WRAP ]==[ INSERT ]======< DIALOG/PROGRESS NOTE TEXT >=====[ <PF1>H=Help ]==
Order Lab Test for Hepatitis C Antibody.
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
<=======T=======T=======T=======T=======T=======T=======T=======T======T

ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// YES


==[ WRAP ]==[ INSERT ]====< ALTERNATE PROGRESS NOTE TEXT >===[ <PF1>H=Help ]
Lab test for Hepatitis C Antibody Ordered at this encounter.


<=======T=======T=======T=======T=======T=======T=======T=======T======T

EXCLUDE FROM PROGRESS NOTE: ?
      Enter Y to stop the question text being added to the progress note.
      Choose from:
        1         YES
        0         NO
EXCLUDE FROM PROGRESS NOTE: 0  NO
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: <Enter>
Select DIALOG to add:
```

```
Dialog List                     Jul 24, 2000 18:19:11       Page:    1 of    2
DIALOG VIEW (DIALOG ELEMENTS)

 Item Dialog Name                            Dialog type             Status
    1  HF DECLINED HEP C RISK ASSESSMENT REFUS Dialog Element
    2  HF NO RISK FACTORS FOR HEP C OTHER      Dialog Element
    3  HF PREV POSITIVE TEST FOR HEP C DONE EL Dialog Element
    4  HF RISK FACTOR FOR HEPATITIS C OTHER    Dialog Element
    5  HFZ DECLINED HEP C RISK ASSESSMENT REFU Dialog Element
    6  HFZ NO RISK FACTORS FOR HEP C OTHER     Dialog Element
    7  HFZ PREV POSITIVE TEST FOR HEP C DONE E Dialog Element
    8  HFZ RISK FACTOR FOR HEPATITIS C OTHER   Dialog Element
    9  LRZ HEPATITIS C ANTIBDOY TEST           Dialog Element
   10  PXZ BLOOD EXPOSURE RISK                 Dialog Element
   11  PXZ BLOOD TRANSFUSION RISK              Dialog Element
   12  PXZ HEMODIALYSIS RISK                   Dialog Element
   13  PXZ INJECTION DRUG USE RISK             Dialog Element
   14  PXZ INTEMPERATE ALCOHOL USE RISK        Dialog Element
   15  PXZ INTRANASAL COCAINE USE RISK         Dialog Element
   16  PXZ MULTIPLE SEX PARTNERS RISK          Dialog Element
             + Next Screen    - Prev Screen    ?? More Actions              >>>
AD   Add              CV   Change View        INQ  Inquiry/Print
CO   Copy Dialog      PT   List/Print All      QU   Quit
Select Item: Next Screen// cv   Change View


      Select one of the following:
          D          Reminder Dialogs
          E          Dialog Elements
          F          Forced Values
          G          Dialog Groups
          P          Additional Prompts
          R          Reminders
          RG         Result Group (Mental Health)
          RE         Result Element (Mental Health)

TYPE OF VIEW: R// D  Reminder Dialogs
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog List                    Jul 24, 2000 18:23:42        Page:    1 of    1
DIALOG VIEW (REMINDER DIALOGS - SOURCE REMINDER NAME)


 Item Reminder Dialog Name                      Source Reminder        Status
    1  HEP C RISK ASSESSMENT (V1.5)             HEP C RISK ASSESSMENT (V1 Linked




            + Next Screen    - Prev Screen    ?? More Actions              >>>
AD   Add Reminder Dialog PT   List/Print All      QU   Quit
CV   Change View          RN   Name/Print Name
Select Item: Quit// 1
```

```
Dialog Edit List               Jul 24, 2000 18:23:44        Page:    1 of    1
REMINDER DIALOG NAME: HEP C RISK ASSESSMENT (V1.5)
 Sequence        Dialog Text
   5             HEPATITIS C HEALTH FACTORS
                 [no caption for this group]
   5.1           1. PATIENT HAS RISK FACTOR(s) FOR HEPATITIS C.

   5.2           2. PATIENT HAS NO RISK FACTORS FOR HEPATITIS C.

   5.3           3. PATIENT DECLINED HEPATITIS C RISK ASSESSMENT.
                    Comment:

   5.4           4. PATIENT HAD OUTSIDE PREVIOUS POSITIVE TEST FOR HEPATITS C.
                    Date:
                    Location:
                    Comment:




            + Next Screen    - Prev Screen    ?? More Actions              >>>
CO   Copy Dialog          DT   Dialog Text          RI   Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog   QU   Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Sequence: Quit// ED   Edit/Delete Dialog

NAME: HEP C RISK ASSESSMENT (V1.5)  Replace <Enter>
DISABLE:
SOURCE REMINDER: HEP C RISK ASSESSMENT (V1.5)//
Select SEQUENCE: 5// ?
 Answer with COMPONENTS SEQUENCE, or ITEM:
    5       GPZ HEPATITIS C HEALTH FACTORS GROUP


    You may enter a new COMPONENTS, if you wish
    Type a Number between .1 and 999.9, 1 Decimal Digit
Select SEQUENCE: 5//<Enter>
  SEQUENCE: 5//<Enter>
  DIALOG ELEMENT/GROUP: GPZ HEPATITIS C HEALTH FACTORS GROUP
        //<Enter>
Select SEQUENCE: 6
  DIALOG ELEMENT/GROUP: LRZ HEPATITIS C ANTIBDOY TEST        dialog element
        ...OK? Yes// <Enter>  (Yes)

Select SEQUENCE: <Enter>
```

Cincinnati Example: Creating a Risk Assessment Dialog Example, cont'd

```
Dialog Edit List            Jul 24, 2000 18:24:01        Page:    1 of    2
REMINDER DIALOG NAME: HEP C RISK ASSESSMENT (V1.5)
 Sequence      Dialog Text
    5          HEPATITIS C HEALTH FACTORS
               [no caption for this group]
    5.1        1. PATIENT HAS RISK FACTOR(s) FOR HEPATITIS C.

    5.2        2. PATIENT HAS NO RISK FACTORS FOR HEPATITIS C.

    5.3        3. PATIENT DECLINED HEPATITIS C RISK ASSESSMENT.
               Comment:

    5.4        4. PATIENT HAD OUTSIDE PREVIOUS POSITIVE TEST FOR HEPATITS C.
               Date:
               Location:
               Comment:


    6          Order Lab Test for Hepatitis C Antibody.
        + Next Screen    - Prev Screen   ?? More Actions              >>>
CO   Copy Dialog        DT   Dialog Text        RI   Reminder Inquiry
DD   Detailed Display   ED   Edit/Delete Dialog QU   Quit
DP   Progress Note Text INQ  Inquiry/Print
Select Sequence: Next Screen// <Enter>
```

CPRS Screens

Reminder Resolution: Hepatitis C Risk Assessment

HEPATITIS C HEALTH FACTORS USED IN SCREENING

Risk factors for Hepatitis C include Blood Transfusion(prior to 1992), IV Drug Use, Exposure to Blood/Blood Products, Multiple Sexual Partners, Hemodialysis, Tatoo/Body Piercing, Cocaine Use, Unexplained Liver Disease, Unexplained Abnormal ALT/SGPT, History of Alcohol Abuse.

☑ 1. PATIENT HAS RISK FACTOR(s) FOR HEPATITIS C.

Risk Factor(s) for Hepatitis C
- ☐ Patient received transfusion of blood or blood products prior to 1992.
- ☐ Patient has history of injection illicit drug use.
- ☐ Patient had exposure on or through skin or mucous membrane.
- ☐ Patient has had multiple sexual partners.
- ☐ Patient is on hemodialysis.
- ☐ Patient has a tattoo or repeated body piercing.

[Clear] [Clinical Maint] [< Back] [Next >] [Finish] [Cancel]

```
CLINICAL REMINDER ACTIVITY
  Hepatitis C Risk Assessment:
      Patient has Risk Factor(s) for Hepatitis C:
```

Health Factors: **RISK FACTOR FOR HEPATITIS C**

Reminder Resolution: Hepatitis C Risk Assessment

Patient had exposure on or through skin or mucous membrane.
- ☑ Patient has had multiple sexual partners.
- ☐ Patient is on hemodialysis.
- ☐ Patient has a tattoo or repeated body piercing.
- ☑ Patient has history of intranasal cocaine use.
- ☐ Patient has unexplained liver disease.
- ☐ Patient has unexplained abnormal ALT value.
- ☐ Patient has history of intemperate alcohol use.

☐ 2. PATIENT HAS NO RISK FACTORS FOR HEPATITIS C.
☐ 3. PATIENT DECLINED HEPATITIS C RISK ASSESSMENT.
☐ 4. PATIENT HAD OUTSIDE PREVIOUS POSITIVE TEST FOR HEPATITS C.

☑ Order Lab Test for Hepatitis C Antibody.

[Clear] [Clinical Maint] [< Back] [Next >] [Finish] [Cancel]

```
CLINICAL REMINDER ACTIVITY
  Hepatitis C Risk Assessment:
      Patient has Risk Factor(s) for Hepatitis C:
        Patient has had multiple sexual partners.
```

Health Factors: **RISK FACTOR FOR HEPATITIS C**
Orders: **HEPATITIS C ANTIBODY**

Tampa Example: Setting up a Hep C Risk Assessment Dialog
Thanks to Kathyrn Corrigan, MD

1. Decide on how you want the dialog to look.

2. Copy the national reminder VA-HEP C RISK ASSESSMENT to a local reminder.

3 . Edit the local reminder: Add local orderable item findings (HEPATITIS C ANTIBODY & HCV RNA QUALITATIVE) and a web site (http://www.va.gov/hepatitisc/) .

```
REMINDER DEFINITION INQUIRY                        Aug 08, 2000 1:24:58 pm
--------------------------------------------------------------------------------
CFHCS HEP C RISK ASSESSMENT          No.  673087
-------------------------------------------

Print Name:                  Hep C Risk Assessment
Related VA-* Reminder:

Reminder Dialog:             CFHCS HEP C RISK ASSESSMENT

Priority:

Reminder Description:
    Assess all patients for hepatitis C risk factors once. Patients with a
    previous laboratory test for hepatitis C or a previous diagnosis of
    hepatitis C do not require further risk assessment.

Technical Description:
    This reminder is based on a policy letter published by the Under
    Secretary of Health (USH) in June 1998.  The USH directed that "all
    patients will be evaluated with respect to risk factors" for HCV.
    Clinicians are required to record this assessment in the patients'
    medical records.  Based on risk factors, antibody testing should be used
    according to an algorithm included in the policy letter.

    According to the VHA Chief Consultant for its Acute Care Strategic Health
    Care Group, the USH intends that each patient seeking care in a VHA
    facility will be screened for HCV risk factors.  VISN officials were
    advised of this mandate.

    BEFORE USING THIS REMINDER, sites need to use the Reminder Term
    Management option to define the local findings that are used to represent
    the national reminder terms:

       RISK FACTOR FOR HEPATITIS C
         This term is released with the health factor RISK FACTOR FOR
         HEPATITIS C.  Add any local findings that represent this term to the
         terms findings.

       NO RISK FACTORS FOR HEP C
         This term is released with the health factor NO RISK FACTORS FOR HEP
         C.  Add any local findings that represent this term to the terms
         findings.

       DECLINED HEP C RISK ASSESSMENT
         This term is released with the health factor NO RISK FACTORS FOR HEP
         C.  Add any local findings that represent this term to the terms
         findings.

       PREV POSITIVE TEST FOR HEP C
```

```
            This term is released with the health factor PREV POSITIVE TEST FOR
            HEP C. Add any local findings that represent this term to the terms
            findings. This term may be used to document historical positive
            tests completed outside the facility.

        HEPATITIS C VIRUS ANTIBODY POSITIVE
          Add local HCVAb lab tests with a condition to check for a positive
          result. An example of the condition field might be: I V="positive"
          or I (V["P")!(V["p"). The text used in the I V="text" condition will
          depend on how the local lab package stores the HCVAb lab result.
          Other lab tests that indicate the patient has Hepatitis C, such as
          viral load test, may also be included as findings for this term.

        HEPATITIS C VIRUS ANTIBODY NEGATIVE
          Add local HCVAb lab tests with a condition to check for a negative
          result. An example of the condition field might be: I V="negative"
          or I (V["N")!(V["n"). The text used in the I V="text" condition will
          depend on how the local lab package stores the HCVAb lab result.
          Other lab tests that indicate the patient has Hepatitis C, such as
          viral load test, may also be included as findings for this term.

        HEPATITIS C INFECTION
          This term is released with the reminder taxonomy VA-HEPATITIS C
          INFECTION.  Note:  This taxonomy can be copied and modified for
          local changes. (e.g. To eliminate using problem list diagnosis from
          the findings, use the new PATIENT DATA SOURCE field to control where
          to look for the HEPATITIS C INFECTION diagnosis.  Alternatively you
          can define an expiration period to consider the diagnosis valid.)
          Add any other local findings that represent this term as the
          findings for the term.

Baseline Frequency:
    Do In Advance Time Frame:  Wait until actually DUE
                Sex Specific:
                Ignore on N/A:
    Frequency for Age Range:  99Y - Once for all ages
                  Match Text:
               No Match Text:

Findings:
                 Finding Item:  RISK FACTOR FOR HEPATITIS C (FI(2)=RT(4))
                 Finding Type:  REMINDER TERM
          Match Frequency/Age:
                   Found Text:
               Not Found Text:
               Rank Frequency:
       Use in Resolution Logic:  OR
  Use in Patient Cohort Logic:
              Effective Period:
        Use Inactive Problems:
          Within Category Rank:
                    Condition:
                     MH Scale:

                 Finding Item:  NO RISK FACTORS FOR HEP C (FI(3)=RT(2))
                 Finding Type:  REMINDER TERM
          Match Frequency/Age:
                   Found Text:
               Not Found Text:
               Rank Frequency:
```

```
        Use in Resolution Logic:  OR
   Use in Patient Cohort Logic:
             Effective Period:
         Use Inactive Problems:
          Within Category Rank:
                    Condition:
                     MH Scale:

                 Finding Item:  DECLINED HEP C RISK ASSESSMENT (FI(4)=RT(1))
                 Finding Type:  REMINDER TERM
           Match Frequency/Age:
                   Found Text:
               Not Found Text:
               Rank Frequency:
        Use in Resolution Logic:  OR
   Use in Patient Cohort Logic:
             Effective Period:
         Use Inactive Problems:
          Within Category Rank:
                    Condition:
                     MH Scale:

                 Finding Item:  HEP C VIRUS ANTIBODY POSITIVE (FI(5)=RT(5))
                 Finding Type:  REMINDER TERM
           Match Frequency/Age:
                   Found Text:
               Not Found Text:
               Rank Frequency:
        Use in Resolution Logic:  OR
   Use in Patient Cohort Logic:
             Effective Period:
         Use Inactive Problems:
          Within Category Rank:
                    Condition:
                     MH Scale:

                 Finding Item:  HEP C VIRUS ANTIBODY NEGATIVE (FI(6)=RT(6))
                 Finding Type:  REMINDER TERM
           Match Frequency/Age:
                   Found Text:
               Not Found Text:
               Rank Frequency:
        Use in Resolution Logic:  OR
   Use in Patient Cohort Logic:
             Effective Period:
         Use Inactive Problems:
          Within Category Rank:
                    Condition:
                     MH Scale:

                 Finding Item:  HEPATITIS C INFECTION (FI(7)=RT(7))
                 Finding Type:  REMINDER TERM
           Match Frequency/Age:
                   Found Text:
               Not Found Text:
               Rank Frequency:
        Use in Resolution Logic:  OR
   Use in Patient Cohort Logic:
             Effective Period:
         Use Inactive Problems:
```

```
            Within Category Rank:
                       Condition:
                        MH Scale:

                    Finding Item:  PREV POSITIVE TEST FOR H (FI(9)=RT(673002))
                    Finding Type:  REMINDER TERM
              Match Frequency/Age:
                      Found Text:
                  Not Found Text:
                  Rank Frequency:
         Use in Resolution Logic:  OR
     Use in Patient Cohort Logic:
                Effective Period:
            Use Inactive Problems:
            Within Category Rank:
                       Condition:
                        MH Scale:

                    Finding Item:  HEPATITIS C ANTIBODY (FI(10)=OI(1798))
                    Finding Type:  ORDERABLE ITEM
              Match Frequency/Age:
                      Found Text:
                  Not Found Text:
                  Rank Frequency:
         Use in Resolution Logic:
     Use in Patient Cohort Logic:
                Effective Period:
            Use Inactive Problems:
            Within Category Rank:
                       Condition:
                        MH Scale:

                    Finding Item:  HCV RNA QUALITATIVE (FI(11)=OI(7059))
                    Finding Type:  ORDERABLE ITEM
              Match Frequency/Age:
                      Found Text:
                  Not Found Text:
                  Rank Frequency:
         Use in Resolution Logic:
     Use in Patient Cohort Logic:
                Effective Period:
            Use Inactive Problems:
            Within Category Rank:
                       Condition:
                        MH Scale:


       General Patient Cohort Found Text:

General Patient Cohort Not Found Text:

General Resolution Found Text:

General Resolution Not Found Text:
     Patients should be assessed once for any one of the following risk
     factors in the past or present:
         1.  Blood/Blood product prior to 1992
         2.  Illicit injected drug use
         3.  Unequivocal blood exposure
         4.  Multiple sexual partners
         5.  Hemodialysis
```

```
          6.   Tattoo/repeated body piercing
          7.   Intranasal cocaine use
          8.   Unexplained liver disease
          9.   Unexplained abnormal ALT value
         10.   Intemperate alcohol use.

Default PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
     (SEX)&(AGE)


Expanded Patient Cohort Logic:
     (SEX)&(AGE)


Default RESOLUTION LOGIC defines findings which can resolve the Reminder:
     FI(2)!FI(3)!FI(4)!FI(5)!FI(6)!FI(7)!FI(9)


Expanded Resolution Logic:
     FI(RISK FACTOR FOR HEPATITIS C)!FI(NO RISK FACTORS FOR HEP C)!
     FI(DECLINED HEP C RISK ASSESSMENT)!FI(HEP C VIRUS ANTIBODY POSITIVE)!
     FI(HEP C VIRUS ANTIBODY NEGATIVE)!FI(HEPATITIS C INFECTION)!
     FI(CFHCS PREV POSITIVE TEST FOR HEP C)

Web Sites:
Web Site URL:
http://www.va.gov/hepatitisc/


 Web Site Title:   VA Hepatitis C Home Page


  The San Francisco VA Medical Center and the Miami VA Medical Center HCV Centers
of Excellence developed this site to provide information and services concerning
hepatitis C tailored to the special needs of veterans and their medical care
providers.
```

4. Print the reminder and review it.

5. Test the Reminder.

6. Add the local Hep C reminder to your own cover sheet (be sure the Reminder GUI Resolution Active is set to "YES").

7. Autogenerate the dialog.

8. Review the dialog.

9. Add dialog parameters for any health factors, if needed.

10. Add finding items to dialog elements for Orderable items.

```
CURRENT DIALOG ELEMENT/GROUP NAME: OI HCV SCREENING PANEL TODAY
Used by:  CFHCS HEP C RISK ASSESSMENT (Reminder Dialog)

DISABLE:
RESOLUTION TYPE: ORDERED//
FINDING ITEM: LRTZ HCV SCREENING PANEL SP TODAY//
DIALOG/PROGRESS NOTE TEXT:
Check here to order HCV screening panel to be drawn TODAY (For outpatients only)

   Edit? NO//
```

Tampa Example: Creating a Risk Assessment Dialog Example, cont'd

```
ALTERNATE PROGRESS NOTE TEXT:
HCV Screening panel ordered to be drawn today.

  Edit? NO//
EXCLUDE FROM PROGRESS NOTE:
SUPPRESS CHECKBOX:
Select ADDITIONAL FINDINGS:
RESULT GROUP/ELEMENT:
Select SEQUENCE:



CURRENT DIALOG ELEMENT/GROUP NAME: OI HCV SCREENING PANEL FUTURE
Used by:  CFHCS HEP C RISK ASSESSMENT (Reminder Dialog)

DISABLE:
RESOLUTION TYPE: ORDERED//
FINDING ITEM: LRTZ HCV SCREENING PANEL SP//
DIALOG/PROGRESS NOTE TEXT:
Check here to order HCV screening panel to be drawn at a FUTURE date
(For outpatients only)

  Edit? NO//
ALTERNATE PROGRESS NOTE TEXT:
HCV screening panel ordered for a future draw.

  Edit? NO//
EXCLUDE FROM PROGRESS NOTE:
SUPPRESS CHECKBOX:
Select ADDITIONAL FINDINGS:
RESULT GROUP/ELEMENT:
Select SEQUENCE:
```

11. Delete those elements from the reminder dialog that will be used in a dialog group or that you do not wish to be present in the dialog. (Delete dialog elements for HF NO RISK FACTORS FOR HEP C OTHER & HF RISK FACTOR FOR HEPATITIS C OTHER since you have added the group that contains these. Delete the taxonomy if you do not wish to have this in your progress note.)

12. Create a dialog group: GRP CFHCS HEP C RISK RESULT (contains the following elements: HF NO RISK FACTORS FOR HEP C OTHER & HF RISK FACTOR FOR HEPATITIS C OTHER: only one choice is allowed.)

```
            Dialog Name:  GRP CFHCS HEP C RISK RESULT
CURRENT DIALOG ELEMENT/GROUP NAME: GRP CFHCS HEP C RISK RESULT
Used by:  CFHCS HEP C RISK ASSESSMENT (Reminder Dialog)

DISABLE:
RESOLUTION TYPE: OTHER//
FINDING ITEM:
GROUP CAPTION: RESULTS OF HEP C RISK SCREEN  Replace
PUT A BOX AROUND THE GROUP: YES//
SHARE COMMON PROMPTS: NO//
MULTIPLE SELECTION: ONE SELECTION ONLY//
HIDE/SHOW GROUP: SHOW//
GROUP HEADER DIALOG TEXT:. . .
```

```
        . . .
   2.  Illicit injected drug use
   3.  Unequivocal blood exposure
   4.  Multiple sexual partners
   5.  Hemodialysis
   6.  Tattoo/repeated body piercing
   7.  Intranasal cocaine use
   8.  Unexplained liver disease
   9.  Unexplained abnormal ALT value
   10. Intemperate alcohol use.
  Edit? NO//
GROUP HEADER ALTERNATE P/N TEXT:. . .
        . . .
  2. Illicit injected drug use
  3. Unequivocal blood exposure
  4. Multiple sexual partners
  5. Hemodialysis
  6. Tattoo/repeated body piercing
  7. Intranasal cocaine use
  8. Unexplained liver disease
  9. Unexplained abnormal ALT value
 10. Intemperate alcohol use.
  Edit? NO// y  YES

==[ WRAP ]==[ INSERT ]===< GROUP HEADER ALTERNATE P/N TEX >==[ <PF1>H=Help ]=
Patient was asked about the following risk factors for hepatitis C:
  1. Blood/Blood product prior to 1992
  2. Illicit injected drug use
  3. Unequivocal blood exposure
  4. Multiple sexual partners
  5. Hemodialysis
  6. Tattoo/repeated body piercing
  7. Intranasal cocaine use
  8. Unexplained liver disease
  9. Unexplained abnormal ALT value
 10. Intemperate alcohol use.

<=======T=======T=======T=======T=======T=======T=======T=======T=======T>===

EXCLUDE FROM PROGRESS NOTE: NO//
SUPPRESS CHECKBOX:
NUMBER OF INDENTS: 1//
INDENT PROGRESS NOTE TEXT: INDENT//
Select ADDITIONAL FINDINGS:
Select SEQUENCE: 10// ?
 Answer with COMPONENTS SEQUENCE, or ITEM
   Choose from:
   5      HF NO RISK FACTORS FOR HEP C OTHER
   10     HF RISK FACTOR FOR HEPATITIS C OTHER
```

13. Add the Group dialog to the reminder dialog

14. Have two sessions open: Check the dialog in the CPSR GUI. Make adjustments to the dialog as needed (be sure to refresh CPRS GUI Reminders between changes). Make changes to the Dialog Text display/progress note text display.

15. Test the dialog: make sure orders pass to the order tab, and all health factors pass to PCE. Check the final progress note.

Tampa Example: Creating a Risk Assessment Dialog Example, cont'd

```
REMINDER DIALOG INQUIRY                        Aug 08, 2000 12:58:46 pm
--------------------------------------------------------------------------

         NUMBER: 673000007

  DIALOG NAME:    CFHCS HEP C RISK ASSESSMENT
         Type:    reminder dialog

         Associated reminder:  CFHCS HEP C RISK ASSESSME
               Autogenerated:  JUL 19,2000  23:20
               Latest Change:  JUL 20,2000  10:16

      DIALOG COMPONENTS:
               Sequence:  5
         Element/Group:  GRP CFHCS HEP C RISK RESULT
                  Text:

               Sequence:  15
         Element/Group:  HF DECLINED HEP C RISK ASSESSMENT R
                  Text:  Declines Hep C risk assessment.

               Sequence:  20
         Element/Group:  HF PREV POSITIVE TEST FOR HEP C
                  Text:  Previous positive test for Hep C.

               Sequence:  25
         Element/Group:  OI HCV SCREENING PANEL TODAY
                  Text:
  Check here to order HCV screening panel to be drawn TODAY (For
  outpatients only)

               Sequence:  30
         Element/Group:  OI HCV SCREENING PANEL FUTURE
                  Text:
  Check here to order HCV screening panel to be drawn at a FUTURE
  date(For outpatients only)

      DETAILED DISPLAY:
REMINDER DIALOG NAME: CFHCS HEP C RISK ASSESSMENT
 Sequence       Dialog Details                                      Disabled
  5             Dialog group: GRP CFHCS HEP C RISK RESULT
                Dialog elements:    1  HF NO RISK FACTORS FOR HEP C
                                       OTHER
HF RISK FACTOR FOR HEPATITIS C
                                          OTHER

 12             Dialog element: HF PREV POSITIVE TEST FOR HEP C
                Resolution: OTHER
                Finding type: HEALTH FACTOR
                Finding item: PREV POSITIVE TEST FOR HEP C
                [HF(673058)]
                Additional prompts: PXRM COMMENT

                Dialog element: HF DECLINED HEP C RISK ASSESSMENT
                      REFUSED
                Resolution: PATIENT REFUSED
                Finding type: HEALTH FACTOR
                Finding item: DECLINED HEP C RISK ASSESSMENT [HF(93)]

                Dialog element: OI HCV SCREENING PANEL TODAY
```

Tampa Example: Creating a Risk Assessment Dialog Example, cont'd

```
                    Resolution: ORDERED
                    Orderable item: HCV SCREENING PANEL [7550]
                    Finding type: QUICK ORDER
                    Finding item: HCV Screening Panel [7676]

 30                 Dialog element: OI HCV SCREENING PANEL FUTURE
                    Resolution: ORDERED
                    Orderable item: ???
                    Finding type: QUICK ORDER
                    Finding item: HCV Screening Panel [7632]
```

CPRS Reminder Dialog

Tampa VAMC Example

Reminder Resolution: Hep C Risk Assessment ☒

☑ Patients should be assessed once for any one of the following risk factors in the past or present:
1. Blood/Blood product prior to 1992
2. Illicit injected drug use
3. Unequivocal blood exposure
4. Multiple sexual partners
5. Hemodialysis
6. Tattoo/repeated body piercing
7. Intranasal cocaine use
8. Unexplained liver disease
9. Unexplained abnormal ALT value
10. Intemperate alcohol use.

RESULTS OF HEP C RISK SCREEN
☐ No risk factors for Hep C.

☑ Risk factor/factors for Hep C present.   Comment: Tattoo

☐ Previous positive test for Hep C.
☐ Declines Hep C risk assessment.
☑ Check here to order HCV screening panel to be drawn TODAY (For outpatients only)
☐ Check here to order HCV screening panel to be drawn at a FUTURE date (For outpatients only)

| Clear | Clinical Maint | < Back | Next > | Finish | Cancel |

CLINICAL REMINDER ACTIVITY
 Hep C Risk Assessment:
  Patient was asked about the following risk factors for hepatitis C:
       1. Blood/Blood product prior to 1992
       2. Illicit injected drug use
       3. Unequivocal blood exposure
       4. Multiple sexual partners
       5. Hemodialysis
       6. Tattoo/repeated body piercing
       7. Intranasal cocaine use
       8. Unexplained liver disease
       9. Unexplained abnormal ALT value
      10. Intemperate alcohol use.
    Patient had risk factor for Hepatitis C recorded.
      Comment: Tattoo

Health Factors: **RISK FACTOR FOR HEPATITIS C**
Orders: **HCV Screening Panel**

Appendix B: IL 10-98-013

Available at: http://vawww.va.gov/publ/direc/health/infolet/109813.doc

June 11, 1998

UNDER SECRETARY FOR HEALTH'S INFORMATION LETTER

HEPATITIS C: STANDARDS FOR PROVIDER EVALUATION AND TESTING

1. **Background:** Hepatitis C virus (HCV) infection was first recognized in the 1970's, when the majority of transfusion-associated infections were found to be unrelated to hepatitis A and B, the two hepatitis viruses recognized at the time. This transmissible disease was then simply called "non-A, non-B" hepatitis. Sequencing of the HCV genome was accomplished in 1989, and the term hepatitis C was subsequently applied to infection with this single strand ribonucleic acid (RNA) virus. The genome of HCV is highly heterogeneous and, thus, the virus has the capacity to escape the immune surveillance of the host; this circumstance leads to a high rate of chronic infection and lack of immunity to reinfection. Reliable and accurate (second generation) tests to detect antibody to HCV were not available until 1992, at which time an effective screening of donated blood for HCV antibody was initiated.

2. HCV infection is now recognized as a serious national problem. Nearly 4 million Americans are believed to be infected, and approximately 30,000 new infections occur annually. Only about 25 to 30 percent of these infections will be diagnosed. HCV is now known to be responsible for 8,000 to 10,000 deaths annually, and this number is expected to triple in the next 10 to 20 years.

3. Hepatitis C has particular import for the Department of Veterans Affairs (VA) because of its prevalence in VA's service population. For example, a 6-week inpatient survey at the VA Medical Center, Washington, DC, revealed a prevalence of 20 percent antibody positivity. A similar investigation at the VA Medical Center San Francisco, CA, found 10 percent of inpatients to be antibody positive. Veterans Health Administration (VHA) Transplant Program data reveal that 52 percent of all VA liver transplant patients have hepatitis C. An electronic survey of 125 VA medical centers conducted by the Infectious Disease Program Office from February through December of 1997, identified 14,958 VA patients who tested positive for hepatitis C antibody. Clearly, HCV infection is becoming a leading cause of cirrhosis, liver failure, and hepatocellular carcinoma. The incidence and prevalence rates are higher among nonwhite racial and ethnic groups.

4. HCV is transmitted primarily by the parenteral route. Sources of infection include transfusion of blood or blood products prior to 1992, injection drug use, nasal cocaine, needlestick accidents, and, possibly, tattooing. Sexual transmission is possible, and while the risk is low in a mutually monogamous relationship, persons having multiple sexual partners are at higher risk of infection.

5. After infection, 90 percent of HCV infected patients will develop viral antibodies within 3 months. The disease becomes chronic in 85 percent of those infected, although one-third will have normal aminotransferase levels. The rate of progression is variable, and chronic HCV infection leads to cirrhosis in at least 20 percent of infected persons within 20 years; 1 to 5 percent of those infected will develop hepatocellular carcinoma.

6. At present, treatment for HCV infection is limited, consisting primarily of administration of interferon alpha, with or without the addition of ribavirin. The treatment benefits some patients and appears to alter the natural progression of the disease, although evidence is lacking that it will translate into improvements in quality of life or reduction in the risk of hepatic failure. Current regimens include the use of 6 or 12-month courses of interferon alpha, with or without ribavirin. The recent National Institutes of Health Consensus Statement on Hepatitis C concluded that liver biopsy should be performed prior to initiating treatment. If little liver damage is apparent, therapy need not be initiated; treatment is probably appropriate for those with significant histologic abnormalities. However, data presented at this Consensus Conference indicated that significant uncertainty remains regarding indications for treatment. Treatment options and a listing of VA protocols will be the subject of a separate Information Letter.

7. A number of serologic tests are available for diagnosis and evaluation of HCV infection. Enzyme immunoassays (EIA) are "first line" tests, and are relatively inexpensive. They contain HCV antigens and detect the presence of antibodies to those antigens. Recombinant immunoblot assays (RIBA) contain antigens in an immunoblot format, and are used as supplemental or confirmatory tests. Viral RNA can be detected by reverse-transcription polymerase chain reaction (PCR) testing. Quantitative HCV RNA testing uses target amplification PCR or signal amplification (branched deoxyribonucleic acid (DNA)) techniques.

8. The EIA tests have sensitivities in the range of 92 to 95 percent. Specificities depend on the risk stratification pre-testing. That is, in blood donors with no risk factors, 25 to 60 percent of positive EIA are also positive by PCR for viral RNA. About 75 percent of low risk donors with positive EIA and RIBA will be positive by PCR. Positive EIA tests should be confirmed by RIBA. If that is also positive the patient has, or has had, HCV infection. In high-risk patients who are EIA positive, particularly if there is evidence of liver disease, supplemental testing with RIBA or HCV RNA analysis is probably unnecessary. Quantitative RNA tests may be useful in the selection and monitoring of patients undergoing treatment.

9. All patients will be evaluated with respect to risk factors for hepatitis C, and this assessment documented in the patient's chart. Based upon those risk factors, antibody testing should be utilized as elaborated on in the algorithm found in Attachment A.

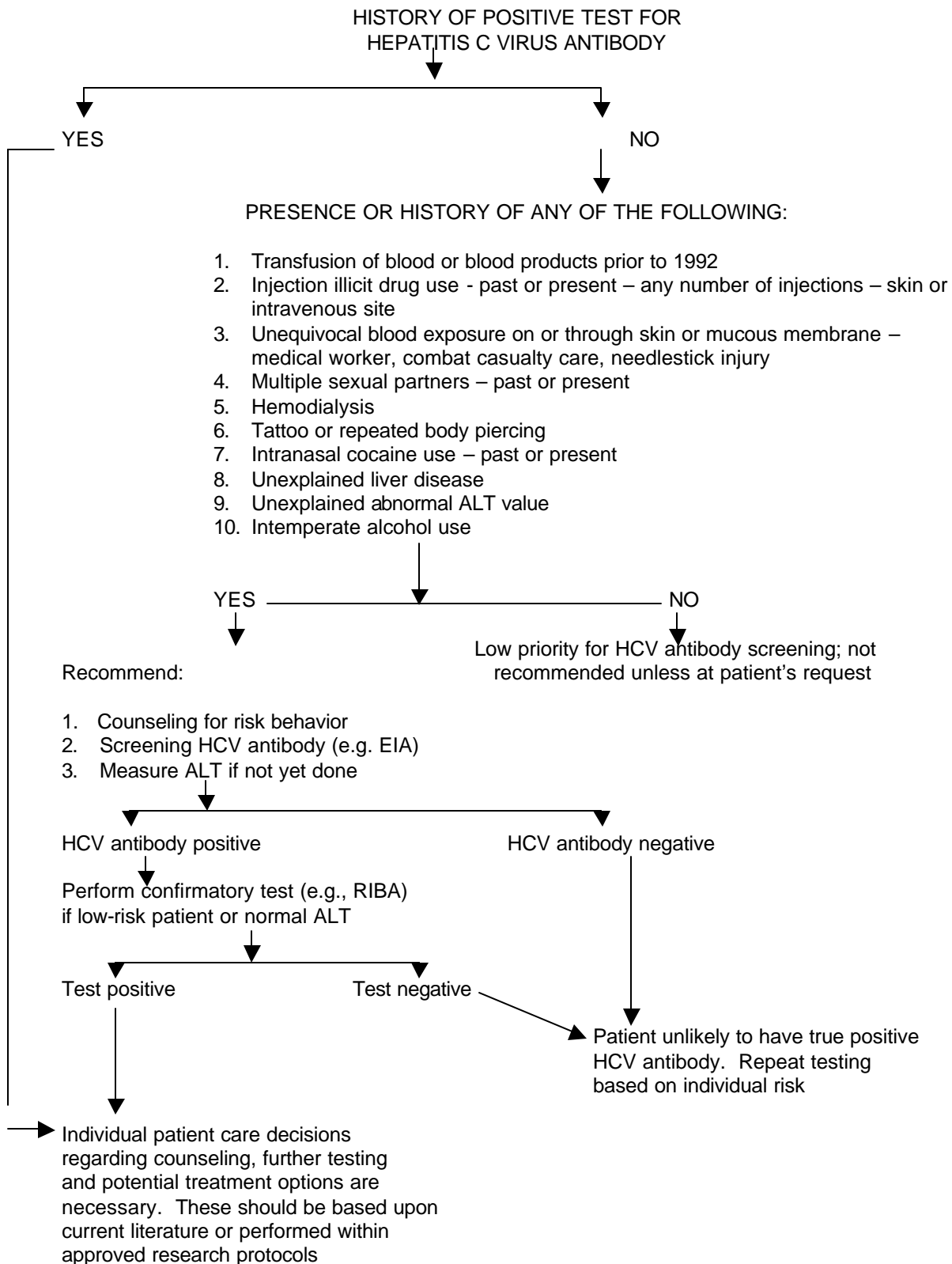> S/Kenneth W. Kizer, M.D., M.P.H.
> Under Secretary for Health

Attachment
DISTRIBUTION: CO: E-mailed 6/11/98
FLD: VISN, MA, DO, OC, OCRO, and 200 – FAX 6/11/98
EX: Boxes 104,88,63,60,54,52,47,and 44 – FAX 6/11/98

ATTACHMENT A
HEPATITIS C VIRUS ANTIBODY SCREEENING
FOR THE VETERAN POPULATION

HISTORY OF POSITIVE TEST FOR
HEPATITIS C VIRUS ANTIBODY

YES   NO

PRESENCE OR HISTORY OF ANY OF THE FOLLOWING:

1. Transfusion of blood or blood products prior to 1992
2. Injection illicit drug use - past or present – any number of injections – skin or
    intravenous site
3. Unequivocal blood exposure on or through skin or mucous membrane –
    medical worker, combat casualty care, needlestick injury
4. Multiple sexual partners – past or present
5. Hemodialysis
6. Tattoo or repeated body piercing
7. Intranasal cocaine use – past or present
8. Unexplained liver disease
9. Unexplained abnormal ALT value
10. Intemperate alcohol use

YES   NO

Low priority for HCV antibody screening; not
recommended unless at patient's request

Recommend:

1. Counseling for risk behavior
2. Screening HCV antibody (e.g. EIA)
3. Measure ALT if not yet done

HCV antibody positive   HCV antibody negative

Perform confirmatory test (e.g., RIBA)
if low-risk patient or normal ALT

Test positive   Test negative

Patient unlikely to have true positive
HCV antibody. Repeat testing
based on individual risk

Individual patient care decisions
regarding counseling, further testing
and potential treatment options are
necessary. These should be based upon
current literature or performed within
approved research protocols

Appendix C: VHA DIRECTIVE 2000-019

Department of Veterans Affairs   **VHA DIRECTIVE 2000-019**
Veterans Health Administration
Washington, DC 20420   **July 19, 2000**

INSTALLATION OF CLINICAL REMINDERS 1.5 SOFTWARE

1. PURPOSE: This Veterans Health Administration (VHA) Directive mandates the immediate installation and use of the Veterans Health Information Systems and Technology Architecture (**V**_IST_**A**) Clinical Reminders 1.5 software.

2. BACKGROUND

   a. Information Letter 10-98-013 established VA standards for evaluation and testing of veterans for Hepatitis C Virus (HCV). Software developed within the Department of Veterans Affairs (VA) assists in clinical management of veterans and provides data regarding progress toward meeting established standards.

   b. Clinical Reminders 1.5 software is a **V**_IST_**A** product that was released to the field on June 21, 2000. This package builds on the functionality originally contained in the Patient Care Encounter package and streamlines the clinical reminders process in conjunction with guidance received from the National Advisory Council for Clinical Practice Guidelines.

   c. Clinical Reminders 1.5 software provides the framework for the functionality of two patches that will be released soon, i.e., Laboratory software v5.2 patch (LR* 5.2*260) and Clinical Reminders software v1.5 (PXRM*1.5*1). Clinical Reminders 1.5 software does not require the Computerized Patient Record System (CPRS) Graphical User Interface (GUI); however, the CPRS GUI v14 provides additional functionality to streamline the clinical reminder process for clinicians at the point of care.

3. POLICY: It is VHA policy that the Clinical Reminders **V**_IST_**A** package be used to extract Hepatitis C information to augment the Emerging Pathogen Initiative (EPI) database.
NOTE: Patches that support the Hepatitis C reporting process depend on the presence of Clinical Reminders 1.5 software.

4. ACTION: By July 30, 2000, each facility will:

---

a. Install Clinical Reminders 1.5 software. Roll-out of the patches that support the Hepatitis C reporting process will begin in August. At that time further instructions will be provided related to a phased seeding of Hepatitis C data into the national EPI database.

b. Follow instructions in the Clinical Reminders 1.5 Installation Guide for mapping Hepatitis C risk assessment terms.

c. Ensure the encounter process (Automated Information Collection System (AICS), Patient Care Encounter (PCE) and CPRS GUI) utilized at each facility is set up to collect Hepatitis C risk assessment data.

d. Set CPRS parameters to include the risk assessment reminder on the cover sheet.

5. REFERENCES: None.

6. FOLLOW-UP RESPONSIBILITY: The Office of Information (192) is responsible for the contents of this directive.

7. RESCISSIONS: None. This VHA Directive expires July 31, 2005.

<div align="right">
S/ Melinda Murphy for
Thomas L. Garthwaite, M.D.
Acting Under Secretary for Health
</div>

DISTRIBUTION: CO: E-mailed 7/20/00
FLD: VISN, MA, DO, OC, OCRO, and 200 - FAX 7/20/00
EX: Boxes 104, 88, 63, 60, 54, 52, 47, and 44 - FAX 7/20/00

Appendix D: Hepatitis C Extract Setup Checklist (Abbreviated)

Use this checklist to check off items as you complete them.

Please refer to the main part of this *Hepatitis C Extract Installation and Setup Guide* to see detailed instructions for setting up this integrated build at your site.

☐ **1.** Establish a Hepatitis C Extract Team at your site, consisting of IRM staff involved with installation and/or setup, the Laboratory Information Manager (LIM), the Pharmacy ADPAC, the Clinical Reminders Manager, the AICS encounter form ADPAC, the CPRS application coordinator, and the individual responsible for reviewing the current results of the LREPI (monthly) runs. Send team names and telephone numbers to the Hepatitis Extract development team.

☐ **2.** Print and review the reminder definitions for VA-HEP C RISK ASSESSMENT, VA-NATIONAL EPI LAB EXTRACT, and VA-NATIONAL EPI RX EXTRACT. **Do not make any changes to these reminders.** You need to review the definitions in order to understand how they use reminder terms.
Option: *Inquire about Reminder Definition* on the *Reminder Management Menu.*

☐ **3.** Print the Reminder Term definitions for the terms in the Hepatitis C reminder definitions. Review the pre-mapped findings (VA Generic drug names, health factors, etc.).
Option: *List Reminder Terms* on the *Reminder Term Management menu*

☐ **4.** Set up Reminder Terms and Lab Search/Extract definitions related to the Lab Service
4a. Identify the laboratory test names that represent the appropriate national reminder terms.
4b. Identify the possible test results that can represent positive or negative results.
4c. Define on paper the condition logic to evaluate the results:
I (V["pos")!(V["POS")!(V["reactive")
d. Edit (map) the reminder term findings in the national reminder term (Reminder Term file) to represent local laboratory tests..
Option: *Reminder Term Edit* on the *Reminder Term Management Menu*
4e. Edit the lab search/extract parameters for national reminder terms with local laboratory tests, indicators, and indicator values.
Option: *Lab Search/Extract Parameter Setup* on the *Lab Search/Extract Primary Menu.*
4f. Compare the Lab Search/Extract and related Reminder Term definitions. These MUST correlate so that multiple ways of extracting the data will have the same result.

☐ **5.** Complete the definitions and mapping of the Reminder Terms in coordination with the your local implementation team.

☐ **5a. Pharmacy Service**
- Identify the local dispense drug names that represent the pharmacy medication in the REMINDER TERM file (#810.5).

- If the local dispense drug names aren't matched to the national VA GENERIC name, either map the local dispense drug to the national VA GENERIC name or enter the local dispense drug as a finding for the Reminder Term.
  NOTE: Some local dispense drugs, such as research drugs, may not be matched to the VA GENERIC file (#50.6).
  Option: *Reminder Term Edit* on the *Reminder Term Management Menu*

□ **5b. Diagnosis (optional)**
- If necessary, change "Patient Data Source" for the national HEPATITIS C INFECTION taxonomy that is distributed with the VA-HEP C RISK ASSESSMENT reminder. This is only necessary if PCE and PTF data are the only reliable entries for diagnosis (excluding progress notes).
- Review the content of the VA-HEPATITIS C INFECTION taxonomy. These are the diagnoses that will be looked for. *There is no need to add additional taxonomies as findings.*
  Option*: Inquire about Taxonomy Item* on the *Taxonomy Management Menu*
  To change PATIENT DATA SOURCE: Using options on the Taxonomy Management and Reminder Term Management menus, do the following:
  o Using *Copy Taxonomy Item,* copy the pre-mapped taxonomy to a local taxonomy
  o Change the PATIENT DATA SOURCE for the local taxonomy
  o Using *Reminder Term Edit,* select the national reminder
  o At the Select Findings prompt, replace the pre-mapped taxonomy with the local taxonomy.
  o Add an effective period for the taxonomy, to restrict the period of time to consider a diagnosis as valid to use (e.g., 1Y for 1 year).

□ **5c. Health Factors (or other methods for collecting risk assessment data)**
- Determine what is used locally to represent the reminder term.
- If the pre-mapped health factor is not used at your site, inactivate the health factor and remove it as a finding for the reminder term definition.
- Add the local health factor(s) as a finding(s) for the reminder term.
  Option: *Reminder Term Edit* on the *Reminder Term Management Menu*

❒ **6.** Run the Reminder Test option after term definitions are completed to review the results of patient data with each of the findings mapped to the term.
  Option: *Reminder Test* on the *Reminder Managers Menu*

❒ **7.** Run a Reminders Due Report for a test period of time to determine if the patients who are reported are appropriate.
  Option: *Reminders Due Report* on the *Reminder Reports menu*

❒ **8.** Send a mail message to the **VHA CIO Hepatitis C Implementation Team** mail group on exchange indicating that your setup is complete.

❒ **9.** The implementation group will review your setup and work out any changes with your local implementation group.

❒ **10.** Schedule the Lab Search/Extract Manual Run (Enhanced) option [LREPI ENHANCE MANUAL RUN] to run in your production account.

❒ **11.** After the test run is completed, review the content of the HL7 messages created, and review the content of the REMINDER EXTRACT SUMMARY file (#810.3) for findings extracted based on the reminder definitions. Use *Extract EPI Totals* or *Extract EPI List by Finding and SSN* on the Reminder Reports menu to verify that the findings extracted for the date range are correct.

❒ **12.** When the setup review is completed, set up your EPI mail group (not the EPI-REPORTS mail group) to send monthly automated runs to the remote member XXX@Q-EPI.MED.VA.GOV. *See instructions and examples in the Lab Patch 260 Technical and User Guide.* Make sure your mail group for EPI is set up to send to all local staff who will help validate the HL7 messages. Enter their names at the MEMBER prompt. This setup is done through VA FileMan in the MAILGROUP file (#3.8).

Example
```
NAME: EPI                              TYPE: public
ALLOW SELF ENROLLMENT?: NO            REFERENCE COUNT: 1220
LAST REFERENCED: AUG 15, 2000         RESTRICTIONS: UNRESTRICTED
MEMBER: Add the local staff who will play a role in validating the HL7 messages.
DESCRIPTION:   This mail group is used for the transmission of HL7 messages
derived from the parameters defined in the EMERGING PATHOGEN file (#69.5) to
the Austin Automation Center. This mail group will also receive Confirmation
and Processing Report Messages from Austin.
REMOTE MEMBER: XXX@Q-EPI.MED.VA.GOV
REMOTE MEMBER:
```

❒ **13.** Schedule the Lab Search/Extract Manual Run (Enhanced) option [LREPI ENHANCE MANUAL RUN] to extract July 2000 data from production when you're ready to transmit to the AAC.

The HEPATITIS C EXTRACT data will automatically be sent monthly (on the 15th of the following month) to the EPI database at the AAC.

❒ **14.** Seed the EPI Database with historical data starting with October 1, 1998 through August 31, 2000. Begin the historical seeding after September 18 and complete by October 13.
- Schedule transmissions chronologically with no two jobs running at the same time
- Avoid scheduling jobs around heavy message traffic days (e.g., billing and payroll transmissions)

❑ **15. Monthly Follow-up on EPI Runs**

- Receive HL7 messages and Verification Report messages on the 15th for the previous month's data.
- Receive Confirmation messages from AAC.
- Receive Processing messages from AAC, which include Errors and Warnings.
- Follow up on Errors in Error Processing messages.
- Use Reminder Extract Summary entries and Verification Report messages as needed.
- Use the LREPI enhanced manual run to rerun a month after errors are corrected.